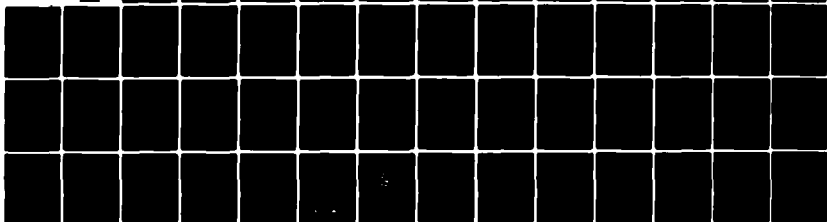


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but is expected to be low due to the long-term absence of Native Americans from the region and their greater concern for the areas in which they presently live. The general lack of information that exists for the study area in regard to Native American resources also partly reflects this lack of concern and small scientific interest with the remains of historic peoples in the study area.

Native American concerns in the Texas/New Mexico study are ill-defined. It is, therefore, difficult to assess possible future trends in the area if M-X deployment does not occur. Certainly proposed plant, highway, pipeline, or reservoir construction in the region could impact, perhaps severely, historic peoples' cultural remains, especially along perennial streams. Native Americans are not known, however, to have expressed any concern about the affects of possible projects in Texas or in the New Mexico part of the study area. If deployment in Texas/New Mexico is selected, Native American representatives in New Mexico and Oklahoma will be consulted to determine what -if any - concerns they might have regarding Texas/New Mexico area cultural resources. A more complete assessment of potential impacts will be made at that time.

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ALTERNATIVE DESIGNATED DEPLOYMENT  
AREAS: NATIVE AMERICANS  
(TEXAS/NEW MEXICO)**

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## 1.0 INTRODUCTION: NATIVE AMERICANS

The National Environmental Policy Act (NEPA), the National Historic Preservation Act (NHPA), and the American Indian Religious Freedom Act (PL 95-341) combine to give Native Americans special input into the planning, impact assessment, and mitigation processes of any project that may affect their interests. NEPA specifically states that it is the responsibility of the federal government to "...preserve important historic, cultural and natural aspects of our national heritage, and to maintain, wherever possible, an environment which supports diversity and variety of individual choice." Regulations for the implementation of this act (40 CFR 1500-1508) require agencies to involve "any affected Indian tribe" (Section 1501.f(a)(1)) in the scoping process and thus require significant concerns to be addressed in the EIS. Two regulations, Executive Order 11593 and 36 CFR 800, implement the National Historic Preservation Act. The direct participation of Native Americans in the inventory, impact assessment, and mitigation process is specifically noted in 36 CFR 800.15. The American Indian Religious Freedom Act (PL 95-341) states that it is the policy of the United States to "protect and preserve for American Indians their inherent right of freedom to believe, express and exercise (their) traditional religions." It further ordered the President to determine appropriate changes in policies and procedures necessary to "protect and preserve Native American religious cultural rights and practices" (Section 2).

There are no Native American reservation or colonies in the Texas/New Mexico study area, unlike the Nevada/Utah study area. No Native American socioeconomic resources have been identified as existing within the study area. This is the result of history, time, and distance, as will be explored below. Surprisingly few cultural resources have been identified in the area, given the known historical occupation by Apaches, Comanches, Kiowas, and Kiowa Apaches. The sensitivity of known cultural resources for contemporary Native Americans living to the west in New Mexico and to the east in Oklahoma is also unknown but is expected to be low due to the long-term absence of Native Americans from the region and their greater concern for the areas in which they presently live. The general lack of information that exists for the study area in regard to Native American resources also partly reflects this lack of concern and small scientific interest with the remains of historic peoples in the study area.

Native American concerns in the Texas/New Mexico study area are ill-defined. It is, therefore, difficult to assess possible future trends in the area if M-X deployment does not occur. Certainly proposed plant, highway, pipeline, or reservoir construction in the region could impact, perhaps severely, historic peoples' cultural remains, especially along perennial streams. Native Americans are not known, however, to have expressed any concern about the effects of possible projects in Texas or in the New Mexico part of the study area. If deployment in Texas/New Mexico is selected, Native American representatives in New Mexico and Oklahoma will be consulted to determine what -if any - concerns they might have regarding Texas/New Mexico area cultural resources. A more complete assessment of potential impacts will be made at that time.

### 1.1 THE STUDY AREA

The Texas/New Mexico study area is almost entirely contained within the Llano Estacado (Staked Plains)--the southernmost portion of the High Plains of

North America—and its margins. This entire area is bounded on the west by the Pecos River, on the east by the headwaters of the Red, Brazos, and Colorado rivers; and on the south it merges into the Edward's Plateau. On the north the Llano Estacado is bounded by the Canadian River, but in this study, the plains of the Canadian are of equal importance with the Llano Estacado (Figure 1.1-1).

Collins (1971:85-86) described the Llano Estacado as a flat plain sloping gradually toward the east and south from an elevation of 4,800 ft near Tucumcari, New Mexico to 2,700 ft near Midland, Texas. It is arid and windy, supporting a drought-resistant flora including buffalo and gramma grasses, mesquite, beargrass, shinny oak, and cacti. Its native fauna include a variety of small animals, deer, antelope, and of most importance in historic times, bison.

Within canyons, micro-environments protected from the wind and furnished with adequate water provided fruit, nuts, and other vegetable resources.

The bison, until its regional extinction in the 1870s, was the dominant food resource of the southern high plains during historic times. Archaeological data, however, show this was not always the case. Just before the time of Spanish penetration into the region, there was a marked increase in bison usage, if not in absolute numbers of bison, that can be correlated with 15th century climatic changes (Gunnerson, 1972:1-28).



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## 2.0 NATIVE AMERICANS PAST AND PRESENT

The Llano Estacado and its margins do not represent an isolated cultural area. Aboriginal tribes with historic ties to the area represent several language families, cultural connections, and styles of social interaction. In historic times this area saw the ebb and flow of people, trade, and warfare. Yet, the study area is an economic area with aboriginal dependence on the bison and with human material adaptations toward bison hunting and bison utilization.

Direct archaeological evidence puts human occupation in the study area from the earliest dates of man in America. The type names Folsom, Clovis, and Plainview, representing earliest man in North America, are from sites found within the study area. There is strong archaeological evidence of continuous human occupation in the area prior to the first historic references.

There are no Native American reservations or colonies within the study area. Native Americans with historic ties to the area live on reservations in Oklahoma (Wichita, Comanche, Kiowa, Kiowa Apache, and descendants of Lipan Apache) and in New Mexico (Jicarilla Apache, Mescalero Apache, descendants of Lipan Apache, and the Navajo who were held at the Fort Sumner reservation on the Pecos River in the 1860s).

The known history of the study area has as a general theme the displacement of the previous inhabitants by waves of ethnically distinct Indians from the north, and in the 19th century by waves of non-Indians from the east. For Native Americans the Llano Estacado was last part of the Comancheria, the free territory of the Comanche and their allies. It ceased to exist in the 1870s with the Comanche military defeat and the extinction of the bison. Prior to the Comanche incursion, the Llano Estacado was part of the Apacheria. At first historical contact, the Apache were only beginning to assert control of the study area and were at war with the Jumanos. The evidence suggests that the Jumanos were themselves fairly recent replacements for Pueblan agriculturalists in the Canadian watershed and for semi-sedentary hunter-gatherers on the Llano itself.

The known history of native Americans in the study area begins with Coronado's penetration in 1541 and ends 350 years later with the settlement of the last fugitive Lipan Apache on the Mescalero Reservation.

### 2.1 THE JUMANOS

The identification of the Jumanos of the Spanish chronicles with existing Native Americans is difficult. The Spanish used the name Jumano to refer generically to several aboriginal groups in the greater southwest who used body paint or tattooing. This generic use has confused the linguistic and cultural relationships of the two Jumano groups known to have inhabited the Llano Estacado and its margins.

Jumanos have been variously identified as affiliated with the Caddoan family (Hodges, cited in Scholes and Mera, 1940:269; Schroeder, 1974:100), the Uto-Aztecan family (Sauer, cited in Scholes and Mera, 1940:269) and even the Athabaskan family (Opler, 1974:335-340; Forbes, 1957). It is likely that two unrelated groups, both named Jumano in the Spanish documents, had historic

connections to the Llano Estacado and its margins. In the north and east was a Caddoan-speaking group (called Jumano I below) while in the south was an Uto-Aztecan-speaking group (called Jumano II below). The Caddoan-speakers seem to have had the greater impact on known historical events. The assertion of Athabaskan affiliation is not supported by the evidence.

### 2.1.1 Jumano I

Following Schroeder (1974), it is likely that Jumanos from the east replaced pre-contact sedentary horticulturalists, with Pueblan connections, in the Canadian River valley around 1450. Whether this was accomplished through force or by the previous withdrawal of these agriculturalists is not clear.

Coronado's expedition of 1541 encountered two mutually antagonistic groups along the Canadian River. They were the Querecho and the Teya. The Querechos are universally accepted as an Apache group. Again following Schroeder (1974), the Teya were a Jumano bison hunting group which affiliated with more sedentary semi-agriculturalists farther to the east and northeast. Spanish records of Pueblan traditions show that inhabitants of the Galisteo Basin, in the vicinity of Santo Domingo Pueblo, were attacked in 1525 by Teyas who later attempted to attack Pecos Pueblo (Casteneda, cited in Schroeder, 1974:69-71). These Teyas (which simply means east) fit the description of Caddoan tribes found farther to the east at later times. Coronado reported the Teyas to the east of the Querecho on the Canadian River. In Casteneda's report of Coronado's expedition, Querechos assert that it is possible to travel down the Canadian River through settled villages for 90 days. The Canadian River, east of the Texas border, was clearly inhabited by Caddoan-speaking Wichitas in late reports (Hodge, 1912:947-999). Thus the villages in Casteneda's report were in all probability inhabited by Caddoan-speaking peoples, later called Jumanos, who were related, if not identical, to the Wichitas. The Coronado and Casteneda reports also connected the Teyas culturally and linguistically with the Quivera to the northeast on the Arkansas River. The Quivera are generally agreed to have been Caddoan-speaking Pawnee (Schroeder, 1974:103, 119) and contemporary sources described their tattooing (Scholes and Mera, 1940:274-275). Wichitas and related tribes were called Jumano by the Spanish in New Mexico in the 18th century (Hodge, 1912:636).

Coronado reported the Querecho (Apache) and Teyas to be at war. The evidence (Schroeder, 1974:100; Gunnerson, cited in Collins, 1971:93) suggests that between 1450 and 1541 the Querecho entered the area of the southern High Plains moving south between the Pueblos to the west and the Teyas to the east. The Teyas in this scenario were the westernmost and most nomadic extension of Caddoan speaking semiagriculturalists. In 1541 the Teyas were at war with the Querecho. By 1598 the war between the Apache and Jumanos in northwest Texas and Oklahoma found the Apache seeking aid from the Spanish (Zaldivar's expedition in Hyde, 1959:9, Schroeder, 1974:166). Franciscan missionaries from New Mexico visited among the Jumanos on the Rio Nueces (Canadian River), just to the east of the Texas border in 1629 and 1634 (Schroeder, 1974:116, 118). This is the area later identified as being occupied by the Wichita.

Benevides (Collins, 1971:93) reports that in the 1620s the Apache controlled 150 leagues (375 mi) along the New Mexican frontier and that their control extended 100 leagues (250 mi) to the east. At least prior to that time, the bison-hunting

Jumano still had access to the Llano Estacado. Physical control of the plains was not possible until the acquisition of the horse gave the Apache the mobility necessary to interdict and punish interlopers.

The rapidly decreasing references to Jumanos to the east and north of the study area after 1740 has been attributed to their merging with the Wichita (Hyde, 1959:94, Schroeder, 1974:171). What is more likely is that increasing western contact and understanding of the ethnic situation on the plains finally eliminated use of the vague category Jumano, who had always been bison-hunting Wichita.

With the arrival of the Comanche on the Llano Estacado in the first decades of the 18th century, the last Jumano connections with the study area, in the form of raids for Apache captives, ended.

### 2.1.2 Jumano II

In 1683 Mendoza (Collins, 1971:93) reported Jumanos being displaced by Apache drives south on the Llano Estacado toward the Edward's Plateau. These Jumanos, however, were most probably Uto-Aztecan, speaking kin to the Suma of the El Paso-La Junta region (Gerald, 1974:69). Confusion arises as both sets of Jumanos exploited bison on the Llano Estacado (probably in different areas) and had similar technological and material adaptations to bison hunting. (Indeed, the technological similarities of nomadic bison hunters, regardless of social, cultural, and linguistic differences, is a striking fact of Plains ethnography.)

In 1582 Espejo's expedition along the Rio Grande encountered Jumanos that were connected with the Patarabuey (later Suma). Luxan, in his report of the expedition, describes these people as having tiendas, a term used in the literature of the time to describe plains tipis (Scholes and Mera, 1940). Later reports from the mid-17th century place Sumas along the Rio Grande between El Paso and La Junta where previously Patarabuey and Jumano were reported (Schroeder, 1974:176). These Jumanos, therefore, can be described as Uto-Aztecan-speaking hunters and gatherers who utilized the bison resource of the southern Llano Estacado.

Gerald (1974:80) suggests that just as the mission Suma lost their identity by inter-marrying with other peoples, the hunting and gathering Sumas (Jumanos) became progressively more allied to Apache tribes of the same area and economic pursuits, ultimately losing their identities as Sumas during the later part of the 18th century. The late history of these Jumanos thus becomes the history of the Mescalero Apache and perhaps the Lipan.

In summary, two unrelated tribes, both called Jumano in Spanish documents, utilized the bison plains of western Texas and eastern New Mexico. Both practiced bison hunting (with its attendant technological and material complex). Both hunted in the Llano Estacado area, perhaps with an overlap of ranges. One of these groups was affiliated with the Caddoan-speaking Wichita to the north and east, the other with the Uto-Aztecan speaking Suma (Patarabuey) to the south.

## 2.2 THE APACHE

Sometime between 1450 and 1541 (Schroeder, 1974:125) perhaps just around 1525 (Gunnerson in Collins, 1971:93) the first Athabaskan-speaking peoples moved

south onto the plains of northeastern New Mexico and northern Texas. Coronado's expedition encountered Querecho on the Canadian River plains (near Dalhart and Stanton) in 1541. These Querecho are universally accepted as people who were later called Apache.

These Querecho were the vanguard of a major movement of linguistically related people in pre-Columbian and historic times. These Athabaskan-speaking peoples originated in the mountains to the west of the MacKenzie River Basin in Canada (Hyde, 1959:4). They moved south along the eastern slope of the Rocky Mountains and came to dominate all the high plains as nomadic bison hunters. At the end of the 17th century French and English traders on Hudson Bay received reports of the Spanish settlements in New Mexico through this network of Athabaskan-speaking tribes controlling the high plains (Hyde, 1959:26). This major movement of people did not end until the 19th century with the expansion of the Apache west into Arizona and south into Mexico.

There was another southern extension of the Athabaskan expansion, the Navajo of north-central New Mexico. The Navajo route to the southwest is unknown but they are linguistically and socioculturally close to the Apache (Schroeder, 1974:34-36) and, historically, close contact and assimilation occurred. Indeed the Spanish sometimes referred to them as Apache de Navajo.

The earliest known Navajo hogan found dates only to 1575 (Hyde, 1959:5), but there is clear reference to an attack by the Navajo on Keres Pueblo prior to Spanish contact. The Navajo are not directly placed within the margins of the Llano Estacado until the 1860s at the Fort Sumner Reservation in Bosque Redondo on the Pecos River. Apache-Navajo connections are, however, part of the history of the Apache.

The historical record of the Apache in the Llano Estacado, its margins and the southwest generally, is known from the history of the Spanish, Mexicans, Texans, and Americans. What is known of the Apache is not known from the Apache themselves.

Named divisions of the Apache--especially from earlier sources--do not necessarily represent boundaries that the Apache would recognize. Names of Apache groups can best be understood as Spanish conveniences and conventions. The Apache refer to themselves as "people." Some names applied to the Apache include: Calchufines, Carlansa, Chipaynes, Conejeros, Cuarteles, Escalchufines, Faraones, Flecha de Palo, Jicarillas, Julimes, Limitas, Lipans, Mescaleros, Natages, Navajos, Nementinas, Ochos (Achos), Palomas, Penxayes, Querechos, Quinias, Qusustas, Rio Colorados, Salineros, Sajines, Sierra Blanca, Siete Rios, Tremontinas, and Vaqueros (Stanley, 1962:13).

The confusion of Apache band names and locations is acute. Faraones Apache are variously reported to be future Jicarilla, or Mescaleros. Cipaynes, identified by some to be the later Lipan, are described as identical to the Faraones (Thomas, cited in Schroeder, 1974:496), later Jicarilla. And Apaches (presumably Faraones and Cipaynes) east of the Sangre de Cristo Mountains are claimed to have enemies (Lipan?) to the east.

This confusion is explicable if the present named divisions of Jicarilla, Mescalero, and Lipan are understood to be originally Spanish--not Apache--divisions.

It was not until the regionalization of Apaches--through military pressure from the Comanche in the north, Caddoan-speaking tribes in the east, and the Spanish in the west and south--that fluid but relatively autonomous bands began to coalesce into present divisions. Thus, the Jicarilla are made up of groups or parts of groups of people who also become Lipan and Mescalero. Apache groups prior to the later 19th century seem not to have been exclusive political units but rather kin-based conglomerations that expanded and condensed as the need arose. Benavides in 1630 recognized the Apache as a nation, ignoring the divisions so dear to the hearts of other commentators (Ray, 1974:23). The range reported by commentators similarly does not necessarily represent Apache perceptions of their territory. Apache raids for horses, weapons, or captives penetrated deeply into the territories of other groups but the Apache invariably returned, albeit often after a long passage, to their own territory.

The historical record of the Apache begins with Coronado's 1541 encounter with Querecho on the bison plains east of the Canadian River and north of the Llano Estacado near present day Dalhart and Stratford, Texas (Schroeder, 1974:94-110). The description of the Querecho diet, tents, clothing, and use of dogs as pack and draft animals provides a classic synopsis of pre-horse plains material adaptations. While nomadic, the Querecho were by no means very mobile. Theirs was, of necessity, a seasonal round of hunting and wintering grounds with but gradual shift of territory.

In 1581 Chamuscado encountered a Vaquero (Querecho) camp a short distance below the confluence of the Gallinas and Pecos rivers. These Apaches reported their lands as being to the northeast on the other side of the Canadian River. As this camp contained 400 "warlike" men (Chamuscado in Stanley, 1962:4) it can be assumed that it represented a major westward extension of Apache hegemony. These people were described much as before but with the additional details that they gathered dates and prickly pears and wintered in the mountains (Schroeder, 1974:143).

In 1590 Castano de Sosa encountered Vaqueros in the Pecos River Valley headed, apparently to winter, toward the Guadalupe and Sacramento mountains from the bison plains of the Llano Estacado (Schroeder, 1974:210-211). (Previous inhabitants of the Pecos Valley, agriculturalists with Pueblan connections, appear to have abandoned the area about the same time the Canadian River settlements were abandoned and probably for similar climatic and economic reasons (the increase in bison leading to a mobile hunting existence) (Jelinek, 1967).) Farther west in the San Andres mountains, Indians were encountered in 1581 and 1583 who might be the same Apaches de Perrillo mentioned by Benevides in 1630 (Schroeder, 1974:210). The lower mid-Pecos Valley region was known to be the habitat of the Siete Rios Apache (near Artesia, Stanley, 1962:82) in the 17th century and the Natage Apache in the 18th century. The shift in names for the people of this area need not, of course, have anything to do with the Apaches who used the area.

In 1598 a priest was assigned to administer to the needs of Indians, including Apaches, to the north and east of the Sangre de Cristo mountains (Schroeder, 1974:315). In the same year Onate and Zaldivar encountered Vaqueros on the plains of the Pecos returning to the Canadian River from a trading expedition to Taos. The Vaqueros attempted to enlist Spanish help against the Jumanos to the east (Schroeder, 1974:166). In 1601 Onate encountered Vaquero Apaches east on the

Canadian River to somewhere between Borger and Canadian, Texas, thus validating Coronado's information on the eastern limit of the Querecho (Schroeder, 1974:111). By 1601 Apaches de Quinia were reported north of Taos, a position confirmed in Benavides Memorial of 1634 (Schroeder, 1971:195; Benavides in Stanley, 1962:16-17). In his 1636 Memorial, Benevides stated that Apaches extended along the eastern New Mexican frontier for 150 leagues to a depth of 100 leagues (Collins, 1971:93).

Thus Spanish sources reveal a gradual expansion of Apache territory, from the Canadian River Valley in 1541 to the south and west, coming, by the 17th century, to control the Llano Estacado, the Pecos Valley, and the mountains to its west (Figure 2.2-1). Jumanos were still in control of the lands to the east of the Llano Estacado (see Jumano, 2.1.1) and certainly still had access to it for bison hunting. Without the horse, the Apache did not have the mobility to control its lands or safely raid deep into other peoples territory.

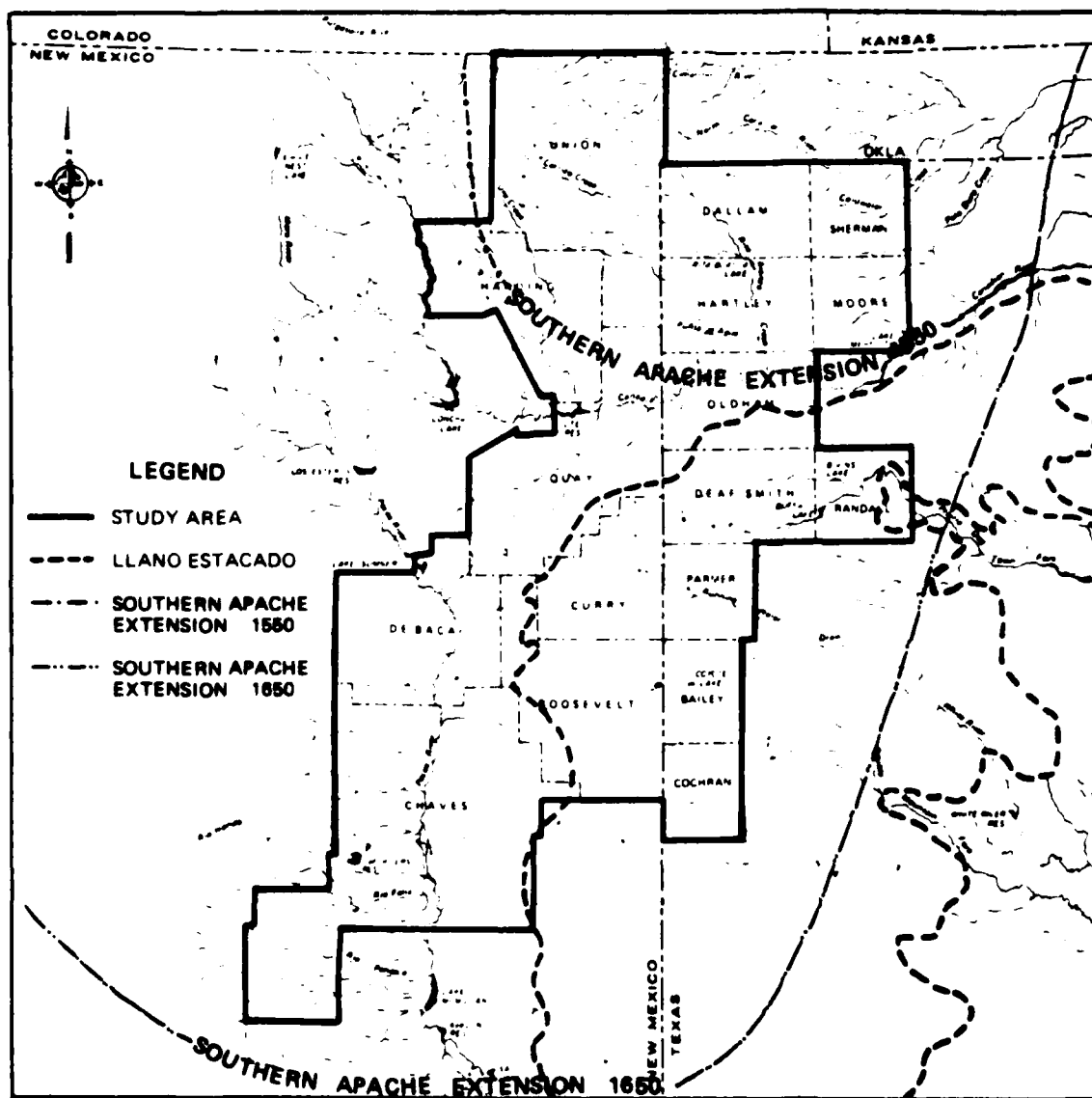
The acquisition of the horse in the first part of the 17th century was, for the Apache, a great technological shift allowing new economic, military, and defense strategies. It is difficult to exaggerate the importance of the horse to the Apache and to the plains Indians in general. It opened up extraordinary opportunities for military adventure and territorial expansion. The movements of plains, mountain, and eastern tribes on the plains of North America from the mid-16th century until the mid-19th century can be seen as a response to this opportunity. Warfare became endemic where before it was episodic and restricted. Also at this time the Apache began to acquire metal for weapons. Both these items, coupled with increasing pressure from their neighbors, were to transform Apache life and assist them in their 300-year war to maintain their independence.

The horse provided mobility for far ranging and long lasting raids. Although their first horses were probably obtained through barter with natives of what is now Mexico, Apaches quickly began to raid for horses both to the east and west. Later in the 1690s, massive raids into Chihuahua and Sonora were staged, devastating those provinces and increasing Apache herds and wealth (Hyde, 1959:15).

By the mid-17th century archaeological evidence (see Johnson et. al., 1977) suggests extensive Apache use south to Lubbock, Texas, southwest from there across the Llano Estacado to the Pecos, and east at the headwaters of the Brazos. In 1683 a great battle on the plains east of the Pecos River was fought between Apaches and Cebollas (Indian bison hunters from the south, affiliation unknown), and the Apache thrust south toward the Edward's Plateau (Mendoza in Collins, 1971:93). By the end of the 17th century, Apaches dominated the Llano Estacado and lands to the east, south, west, and north.

It was also during the 17th century that the Apache expanded west across the Rio Grande and on into Arizona (Schroeder, 1974:34-39). These Apache (the Gila, Chiricahua, etc.) are only marginally connected with the history of this study area and then only late in the 19th century.

It is only after the 17th century that Apaches can be legitimately divided into more or less regional assemblages. This is due not so much to any internal dynamic among the Apache, as it is to their fragmentation by the Comanche invasion. Regional divisions did not, however, become truly exclusive ethnic units until the mid-19th century.



3132-A  
3133-A

Figure 2.2-1. Approximate Apache extensions, 1550 and 1650, counties including parts of the study area and the Llano Estacado.

Between 1541 and 1700 the Apache had expanded south from the plains of the Canadian River to control all of the Llano Estacado, the Pecos River Valley, and the mountains on its northern and western margins. When Coronado first passed through Arizona and New Mexico, the areas between agricultural settlements were uninhabited (Schroeder, 1974:34), yet by the end of the 17th century, Apaches had extended through all of the Pueblo county, living--in part--from raids on these agriculturalists. To the east expansion was slower (see 2.1.1), but by the end of the 17th century they had expelled the Jumanos from the Canadian River. It wasn't until Comanche pressure forced the Apache from the northern Llano Estacado in the 18th century that greater eastern expansion truly began.

### 2.2.1 The Jicarilla Apache

Unlike the people later identified as Lipan and Mescalero, the Jicarilla Apache placed more emphasis on agriculture, were less dependent on raiding, and had more intercourse with the Pueblos. Thomas (1974:46) sees them as being intermediate between a plains and a pueblo culture. But, until late in their history, the Jicarilla were still economically dependent on bison.

The people who came to be known as the Jicarilla inhabited western Nebraska, western Kansas, and eastern Colorado under the historic names of Carlana, Penxaye, Cuartelejo, and Jicarilla (Schroeder, 1974:65). Certainly peoples who became Jicarilla also inhabited the plains of the Canadian under the names Cipaynes and Conexeros (but these people also became Lipans and Mescaleros) and the Valley of the Pecos under the name Faraone (but these people also became Mescalero).

The Pueblo-Apache settlement of El Cuartelejo in western Kansas was first formed by run-away (from the Spanish) people from Taos in 1664, who were later recaptured. They were followed in 1696 by apostate Picuris (Schroeder, 1974:323). In 1694, Vargas reported Apaches de Acho along the Red River in northern New Mexico. Urlibarra in 1706 encountered Apaches, Jicarillas, Conejeros, Ochos, and Rio Colorados on the Cimarron River and described Apaches (and Pueblos) as harvesting maize, pumpkins, watermelons, and kidney beans in El Cuartelejo (Schroeder, 1974:342). They were reported under attack by Caddoan-speaking plains Indians from the east. At the same time, Comanches and their Ute allies (soon to be enemies) were attacking Carlana, Sierra Blanca, and Penxayes groups in southeastern Colorado. These attacks began the regionalization of the Apache.

The Colorado and Kansas Apaches were particularly vulnerable to attack. They had been shifting more and more toward a settled agricultural life (Hyde, 1959:48). With Puebloan captives and partners (in the case of El Cuartelejo) they were slowly taking on the building and craft arts characterizing settled peoples. But their fixed agricultural settlements were targets for the Comanches and Utes. These raids were timed for periods that Apaches would be resident in their villages for planting or harvesting (between the two periods, nomadic hunting was the rule). The concentration of potential booty in the form of captives for the slave trade, horses, food, and provisions resulted in that potential being realized by Comanche and Ute marauders.

The Spanish ignored the Comanche threat until 1716 when the Comanche raided Taos and other settlements, raiding which was repeated in 1717. In 1718, they attacked a Jicarilla settlement north of Taos (Hyde, 1959:67). Apaches in

Colorado are reported moving into northern New Mexico at this time under Comanche pressure. Those on the plains of Nebraska, Kansas, and Oklahoma were also being driven south and west, but by Caddoan-speaking plains tribes who were not only mounted but possessed French firearms. The Apache were not armed because of the Spanish policy against arming Indians and the penury of Spanish settlers who could not afford weapons for their own defense (Schroeder, 1974:371).

In the 1720s, Cipanye Apaches were forced out of the Canadian River under Comanche pressure; some moving south (becoming Lipan and ultimately Mescalero) and west, these latter merging with other groups to become the Jicarilla (Schroeder, 1974:368). By 1739, Comanches were established on the bison plains of eastern New Mexico and the Texas panhandle (see Lipan 2.2.2 and Comanche 2.3 sections) in what was previously Apacheria.

Throughout the mid-18th century, the Jicarilla were continually harassed by the Comanche and decreasingly by the Utes. Their territory stabilized in the Sangre de Cristo Mountains, the Raton Mountains, the Cimarron River, and the bison plains east of the Pecos in northeastern New Mexico. After 1750, the Spanish refer to all these Apaches (who they previously called Cipanyes, Faraones, Sierra Blanca, Paloma, Cuartalejo, Jicarilla, etc.) as Jicarilla.

The Spanish also increasingly separated the Jicarilla from other Apaches. Their campaign against the Apache in 1788 specifically excluded the Jicarilla (Thomas, 1974:42). Jicarilla raids on the Spanish during this time were of a minor nature.

The Jicarilla assisted the Spanish in their campaigns against the Comanche (Thomas, 1974:38-39) to drive them from Jicarilla territory. By 1794, however, the Jicarilla and Comanche were at peace east beyond the Pecos and in southern Colorado. The semi-agricultural Jicarilla were secure in their rancherias and could safely hunt on the bison plains in season. This situation continued until at least 1820 (Thomas, 1974:42-46).

Documentary information on the Jicarilla up to 1846 is weak (Schroeder, 1974:392). It was in the 1820s, however, that American trappers began penetrating into southern Colorado followed in the 1830s by organized trapping companies. This penetration occurred first in previous Jicarilla occupation areas but later extended farther south into their territory in the Sangre de Cristo mountains.

The Santa Fe trail, on either of its main routes, impinged directly on Jicarilla territory. In 1843, only 80 wagons a year used the trail but by 1849, that number increased into the thousands. In 1845, Lt. Abert encountered Apaches in the mountains south of Bent's Fort (Thomas, 1974:68). Lt. Gilpen encountered Apache in his campaign along the Canadian, Cimarron, and Arkansas rivers. The Jicarilla ran off the horses of Adobe Fort near Stinnet, Texas in 1848. In 1849, they attacked a small party near Ute Creek along the Texas/New Mexico border.

Bent reported that Jicarilla (numbering perhaps 500 people) roamed the mountains of northern New Mexico in 1846. As a result of Jicarilla depredations up through 1850, a treaty was signed by Chacon for the Jicarilla in 1851 with Governor Calhoun of New Mexico. The treaty was never ratified (Thomas, 1974:87) and strife continued with provoked and unprovoked attacks on the Jicarilla. Thomas considers

1848-1855 a period when the American military undertook a policy of deliberate extermination against the Jicarilla (1974:85). At the end of this period, the harassed Jicarilla were in dire economic straits and sued for peace (Thomas, 1974:98). But once again, the treaty was not ratified. Until 1873, the Jicarilla continued to use their traditional areas of the mountains of northern New Mexico, centering on the agency at Cimarron (Stanley, 1962:207) and Abiquiu (Thomas, 1977:99). In that year, a new treaty--again never ratified--was negotiated giving the Jicarilla a reservation adjoining the Navajo on the west and the Ute in the north. Finally, an attempt was made to move them to Fort Stanton, the site of the Mescalero Reservation, but only 32 Jicarilla were rounded up at Cimarron and sent south in 1878.

The 32 left in January of 1879 and returned to Tierra Amarillo--in response to Anglo depredations on the Mescalero reservation. Finally in 1880, a reservation was established at the present site along the Continental Divide in north central New Mexico and by 1882 most had settled there. They were again removed to the Mescalero reservation under false pretenses and the corrupt practices of Indian agent Llewellyn. They almost immediately began escaping back to northern New Mexico. Finally, with the assistance of the governor of New Mexico and the American military, they were resettled on their present reservation in 1887 (Thomas, 1974:108-119).

## **2.2.2 The Lipan Apache**

During the latter part of the 18th and all of the 19th century, Apaches in Texas east of the Pecos River were known as Lipan. They and the Mescalero were more consistently hunters, gatherers, and raiders than were the Jicarilla in the north. Regionalization of Apaches in the study area--as a result of the Comanche incursions at the beginning of the 18th century--focused Lipan Apache attention to the east and south of the Llano Estacado as it did Jicarilla attention to the north and west and Mescalero to the west and south.

The origin of these eastern Apache divisions can be seen as arising from this forced shift of focus. The naming of these divisions, Jicarilla, Lipan, and Mescalero, did not mean that such regional conglomerations of Apaches were exclusive in membership or fit neatly into Spanish perceptions of tribalness. It is true, however, that these three divisions ultimately came to be both exclusive and to fit Spanish perceptions--but not until after the Spanish had disappeared.

After the Comanche incursion, Apaches still held the southern part of the Llano Estacado approximately south of a line running from Clovis, New Mexico to the southeast. As late as 1793, a group of Apaches known as Llaneros reported to the Spanish in El Paso that they still held their traditional lands in the Arenales, an area extending south from Clovis on both sides of the Texas/New Mexico border. These people were probably both Mescalero and Lipan--in Spanish terms. They existed where regional foci of attention overlapped (Schroeder, 1977:537-538). Thus, there was no clear demarcation between the Lipan and Mescalero until the 19th century.

Named groups--later to become Lipan living on the Canadian River in 1695--were the Cipaynes and Conexeros; these may or may not be the same peoples called Rio Colorados and reported in the same area in 1694 (Schroeder, 1974:495). The Canecy (also to become Lipan) lived on the headwaters of the Red River in 1719 (Schroeder, 1974:497).

Sometime between 1720 and 1723, the Comanche broke Apache control of the northern Llano Estacado in a nine-day battle on the plains east of the Pecos River--perhaps on the Red River (Schroeder, 1974:499).

Spanish reports of increasing Apache aggression in Texas, beginning in 1724, correspond to the Apache defeat and expulsion from the Llano Estacado (Ray, 1974:24) and to continuing Comanche pressure along their common boundary. Throughout the 18th century, the Lipan Apaches were successful in holding their lands against Spanish attack, but not as successful in holding their lands against the Comanche.

By 1732, the Lipan had shifted south before the Comanches and had stabilized in the area of "the San Saba, Chanas (Llano), and Perdenales" (Dunn, cited in Schroeder, 1974:501). This represented their eastern territory well into the 19th century. Mescaleros and Lipans are reported hunting together on the Rio Colorado in 1745 (Schroeder, 1974:519) and were said to hunt bison together in the fall on the San Saba and Perdenales rivers (Dunn, cited in Schroeder, 1974:520).

In 1757, the Spanish established a mission to convert the Apache at San Saba, Texas, deep in northern Apache territory near the Comanche. In 1758, the Comanche descended on the mission and presidio, destroying them and Spanish hopes for pacifying the Apache (Ray, 1974:40).

Apache attacks on Spanish settlements--especially San Antonio--continued, partially in response to Spanish efforts to assert control over Apache lands (Ray, 1974: 25). In 1772, the Spanish began to realign their military posture from offense to defense. The defensive strategy against the Apache was to continue through the Spanish and Mexican periods. Spanish attention became diverted from their Texas frontier problems by the French Revolution and later the Mexican War of Independence. Mexican attention to the frontier was limited by lack of funds and weak military organization. Indeed, during this period, Texas was becoming depopulated of non-Indians. The whole non-Indian population in Texas was only 3,500 in 1821. (Ray, 1974:43). The Apache and other Indians of Texas were pushing back the frontier.

The period of American colonization of Texas up through independence had little impact on the Lipan. All of the American settlements were located east of the Lipan lands, but well within raiding range. Sam Houston negotiated a conciliatory treaty with the Lipan in 1838, but there exists no record of its ratification (Ray, 1977:51-58). In 1839, the Republic of Texas adopted an Indian policy of extermination and expulsion. The Lipan, perhaps to avoid either of those options, joined with the Texans in campaigns against the Comanche (Ray, 1974:59). The Comanche, in revenge against the Texans, began raiding through Lipan territory to attack outlying ranches and settlements as far as Goliad, and they were to continue this until 1859 (Ray, 1974:61-62). But a peace assembly in 1844 provided peace for the Lipan both with the whites and with the other Indian tribes of Texas.

The government of the United States came into contact with the Indians of Texas in 1846 and brought about a treaty with them, including the Lipan. It offered them the protection of the United States government and reaffirmed the peace that generally existed between the frontier Indians and the Republic of Texas (Ray, 1974: 75-81). The negotiators of the treaty reported the population of the Lipan at 125,

which means that only a small portion of these Texas Apaches were involved (Ray, 1974:78).

In August, 1847, there was a minor encounter between Lipan and United States military messengers south of San Antonio. This was the beginning of the end of the relative peace that had existed for the Lipan since the late 18th century. It was to be the beginning of a time of conflict that would last until the end of the 19th century (Ray, 1974:88-89)--a conflict with troops from both the United States and the State of Texas, that would rage both in the United States and Mexico, a conflict continually exacerbated by white settlement within Indian territory. By 1850, the Lipans on the Llano River were actively seeking a cessation of hostilities; their general situation was also becoming increasingly desperate because of an increasing scarcity of game. A new treaty (Rollins) was signed in that year. In 1851 another treaty was signed (San Saba). By 1856, plans were made for reservations for the Mescalero in the west and northern tribes but none for the Lipan (Ray, 1974:137).

During all of this period, mistaken and unprovoked attacks were maintained against the Lipan. Groups of Lipan were moved about at the request of the military in an almost whimsical manner (Ray, 1974:134-151) and continual military harassment was the order of the day (Opler, 1974:275-287).

In 1854 many, if not all, of the Lipan Apache fled to Mexico for protection from the U.S. Army (Ray, 1974:151-152), although hunting parties and raiders continually slipped back into Texas. In 1855, a battalion of Texas irregulars invaded Mexico in search of Lipan (Opler, 1974:282)--the beginning of a number of such incursions that were to be followed, after 1870, by regular U.S. troops (Opler, 1974:290).

During the Civil War, the Lipan took advantage of the weakened frontier. After the Civil War, the military began to pursue Indians whenever they might be found. By 1873, a portion of the Lipan had been forced onto the Mescalero reservation at Ft. Stanton while others continued to seek sanctuary in Mexico (Ray, 1974:166-167).

In the late 1870s, efforts against fugitive Lipans redoubled (Opler, 1974:301) including more military incursions into Mexico. Finally, after 1881, there was no attempt by the Lipan to remain in Texas (Opler, 1974:307).

Some Lipan stayed in Mexico but in 1905 all 19 remaining there were repatriated to the Mescalero Reservation in New Mexico. Some Lipan had made their way to the Mescalero Reservation on their own. A few settled with the Kiowa Apache on their reservation in Oklahoma and one with the Tonkawa. In 1905, there were a total of 35 Lipan left (Hodges, 1912:769). This can be compared to a population in 1845-55 of between 500 and 1,000 (Ray, 1974:183).

### **2.2.3 The Mescalero Apache**

From the mid-18th century, those Apaches south of the Jicarilla between the Rio Grande and Pecos River in New Mexico and Texas, were known as the Mescaleros. Like the Lipan, they were primarily hunters and gatherers with occasional horticulture, but seemed always to depend more on raiding for subsistence than either the Lipan or Jicarilla.

The people who lived in the area later identified as Mescalero territory were historically known as Vaqueros, Apache de Perrillo, Sierra Blanca, Apache de Siete Rios, Natage, and Faraones (see Apache, 2.2). It was not until the beginning of the 19th century that Spanish names for Apache groups in the area coalesced into the name "Mescalero."

From 1620 (Schroeder, 1974:481), the Apache between the Pecos and the Rio Grande in New Mexico were raiding Pueblos and Spanish settlements along the Rio Grande. The names used from Spanish sources of the time, and attempts to reconstruct Apache movements, show widespread Apache activity but no definitive way to distinguish bands of regional Apaches.

Historic records of the Mescalero begin after the Pueblo Rebellion with the Spanish reconquest of New Mexico in 1692. At that time, the name Faraone Apache appears (a generic term referring to the hordes of Pharoah (Schroeder, 1974:491)). These Faraones were reported on the Pecos River in 1692, the Manzano Mountains in 1693, and the Scandia Mountains in 1694 (Schroeder, 1974:491), where they also were reported in 1715 (Schroeder, 1974:503). By 1720, Faraones were said to be headquartered in the Siete Rios regions (near Artesia, New Mexico) and to extend south to the Rio Grande as far east as La Junta. The Spanish complained of their constant raids (Schroeder, 1974:503). In the mid-18th century, the Spanish reported contact between the Gila Apaches (to the west of the Rio Grande) and the Faraones to the east (Schroeder, 1974:508-509). The regional foci of Apache attention in New Mexico and Texas west of the Pecos River overlapped that of the Apaches in Texas east of the Pecos on the Llano Estacado south of Clovis (see Lipan 2.2.2) in the territory of the Llaneros. The name "Faraone" did not pass out of use until 1814 (Schroeder, 1974:506).

The name "Natage" (mescal people) was used in the southern New Mexico Pecos valley from 1726 (Schroeder, 1974:511). In 1745 the Natage were reported to be made up of two divisions--the Mescalero and Salinero (Schroeder, 1974:519). Just as did the Lipans, the Natage appear to have expanded to the south in the first part of the 18th century, perhaps due to the same cause--Comanche incursions to the north and east. Throughout the latter half of the 18th century, the Mescalero were raiding into Mexico and ranged freely through New Mexico east of the Rio Grande and in Texas east to the Pecos (Schroeder, 1974:527-533). But these Apaches were increasingly caught between Comanche pressure to the east and the Spanish to the west and south (Schroeder, 1974:530). Especially in the 1770s and 1780s, the Spanish campaigned extensively in the area, forcing the Apache away from Spanish settlements (Schroeder, 1974:531; Sonnichsen, 1958:46-51). As a result, the Mescalero became concentrated around the Sierra Blancas (Schroeder, 1974:532).

A treaty was signed in 1779 between the southern Mescaleros and the Spanish, but the Mescalero were unable to settle down. And in the north, the Natage still raided but were brought gradually under control by the Spanish (Schroeder, 1977:533; Sonnichsen, 1958:51). Warfare continued but at a quieter level and, for the Spanish, Navajo-Apache conflict during the first part of the 19th century removed some pressure (Schroeder, 1974:542; Sonnichsen, 1958:51). The Mexican War of Independence similarly diminished Spanish pressure on the Mescalero in New Mexico and Texas (Ray, 1974:41) and by 1825, the Mescalero had forced the abandonment of Spanish settlement in the Valverde area (Schroeder, 1974:543). In the 1830s and 1840s, the Mescalero came to control areas outside of settlements in their New

Mexico, Texas, and Mexican ranges. Within the Republic of Texas, the Mescalero were far beyond the frontier and seemingly of little concern.

The early American period in New Mexico and Texas merely documents Mescalero traditional ranges and raiding. The increased traffic through New Mexico on the Santa Fe trail and between Texas and New Mexico provided increased opportunity for Mescalero raiding for stock and plunder, but it also increased the presence of U.S. military troops and in response to this raiding promised the end of Mescalero freedom.

In 1852 a treaty was signed between the United States and the Mescalero but stock raiding commenced again soon thereafter (Schroeder, 1974:551) and attacks on civilians and troops continued. In 1855--as a result of several defeats--the Mescalero asked for peace and their activity in New Mexico fell off (Schroeder, 1974:558-559). At the beginning of the Civil War, Mescalero raiding activities once again increased. In 1862 U.S. troops surprised a large camp of Apaches who, to gain peace, agreed to settle on a reservation. About 400 moved, in the spring of 1863, to the Bosque Redondo on the Pecos River under the control of Fort Sumner (Schroeder, 1974:561; Jelinek 1967:27-28). In September of 1863, Navajos, ultimately to number 8,000-9,000, were also sent to Fort Sumner. This worked great hardship on the Mescalero already in residence. The Navajo were also hard pressed due to the lack of good water and limited arable land. In 1865 the Mescalero deserted the reservation and headed into the mountains to the east. The reservation was closed as a total failure and the Navajo removed in 1868 (Jelinek, 1967:29-32).

After their escape from Fort Sumner these and other still-free Mescalero continued in their normal range (Schroeder, 1974:563) but U.S. military pressure, including raids into Mexico, made their situation untenable. In 1873 a determined effort was made to concentrate the Mescalero on the reservation at Fort Stanton but free Mescalero continued to operate in their southern range and Mexico against ever increasing military pressure (Opler, 1974:324-325).

The Mescalero on the reservation at Fort Stanton were held prisoner for several months in 1879-80 as a result of the Chiricahua chief Victorio's raiding in Texas and Mexico. This imprisonment generated followers for Victorio. Even after his death Mescaleros continued to raid, often seeking sanctuary in Mexico, until 1882 when reports ceased (Opler, 1974:331). The last free Mescalero were captured in 1886, with Geronimo in Mexico and at Fort Apache in Arizona, and sent to Florida (Sonnichsen, 1958:198-22).

In 1889 a small group of Mescalero were allowed to return to New Mexico, leaving 14 who followed the Arizona Apache when they were transferred to Fort Sill. In 1913, 187 of this group moved to New Mexico. About 100 remained in Oklahoma (Sonnichsen, 1958:204-207).

## **2.3 THE COMANCHE**

During the 18th century the bison hunting Comanche came to dominate the Southern High Plains, including much of the Llano Estacado, north of the Arkansas River, west to the Pecos River, and east to about the 98th meridian (Figure 2.3-1).

The Comanche were intruders into the area. They appeared to have their origin in the mountains of northwestern Colorado and northeastern Utah and to have



moved south through the intermontane parks of Colorado (Hyde, 1959:56-59; Wallace, 1952:6-9). They were Uto-Aztecan speakers with a language almost identical to that of the Shoshone (Hodge, 1912:327) and very close to that of their kin, the Ute. They make their first appearance in New Mexico in the period 1704-05 (Benevides in Schroeder, 1974:369), introduced to the Taos trading fair by their allies, the Utes.

By that time the Comanche already had horses and with their Ute allies had been raiding in southern Colorado against the Apaches (Ulibarri in Hyde, 1959:50). They continued to attack only Apaches and Navajos until 1716 when they raided Taos and some Spanish settlements. They raided again in 1717 and 1718 and by 1719 had also pushed the Apache out of southern Colorado (Hyde, 1959:67). Toward the east the Comanche were on the Canadian River by the same year and no mention is made of Apaches on the Canadian after 1715 (Hurtado in Schroeder, 1974:496). Sometime between 1720 and 1723, a large battle, lasting nine days, took place on the plains east of the Pecos between the Comanche and the Apache. This battle resulted in the defeat of the Apache and their expulsion from the northern Llano Estacado (see Lipan, 2.2.2). The push south by the Comanche resulted in the regionalization of the Apache. This was not a formal military campaign nor did it represent all of those who identified themselves as Comanche. Instead it represented the vanguard of a widely spread people who themselves were subject to, and retreating from, military pressure from the Kiowa and Kiowa Apache to the north (see Kiowa, 2.4).

The Comanche are universally described as formidable horsemen, centaurs whose exploits were unparalleled. This gave them a real advantage over their opponents. Against the Apache, however, their real advantage was in their true mobility. It was shown that the Jicarilla, for example, were in transition between pueblo and plains life. Their semi-permanent rancherias were fixed targets for attack during the planting and harvesting periods (see Jicarilla, 2.2.1; also Secoy, cited in Schroeder, 1974:373). The Comanche also became friendly with the French and obtained firearms--something denied to the Apache by the Spanish.

By 1739, the Comanche were encountered on the plains of eastern New Mexico; by 1757, Comanches trading at Pecos Pueblo returned south to their own territory (Cachupin in Schroeder, 1974:382; Fulmer in Schroeder, 1974:382).

By the 1750s, the Comanche held most of the lands they had until their final defeat, the Comancheria that ranged west into the Cimarron area east of Taos, east to the junction of the Arkansas and Canadian rivers, north to the Arkansas, and south into Texas--bounded there by the Lipan Apache.

Throughout the latter half of the 18th century, the Comanche were a constant threat to Spanish interests in New Mexico and Texas, although a peace was made between the Spanish and Comanche in 1785 (see Lipan, 2.2.2, and Schroeder, 1974:388-393).

For a while the Comanche were separated into two groups, a southern and eastern group operating in Texas (the Penetaka band), and a northern and western group operating in Colorado and on the plains of the Arkansas (Schroeder, 1974:501). The southern group seems to have gained control of the Pecos Valley in New Mexico by the 1770s (Schroeder, 1974:530). In 1786, a treaty was signed between the

southern Comanche and the Spanish, who undertook to build a settlement for them on the Arkansas River. The settlement was soon abandoned for religious reasons after the death of a Comanche woman (see Section 3.2) (Wallace, 1952:290). No further attempt was made to settle the Comanche. The French Revolution and later the Mexican war of Independence withdrew Spanish attention from the Comanche. Peace was ostensibly maintained, although Comanche raids continued.

To the north, the traditional enmity between the Comanche and the Kiowa (including the Kiowa Apache) ended around 1790 and from that date onward they were close allies and friends sharing territory (see Kiowa, 2.4; Wallace, 1952:276-277; Hoebel, 1940:11).

The United States Government's policy of removing eastern Indians to the Indian Territory (Oklahoma) ignored the fact that these lands were already occupied by indigenous people including the Comanche. In 1835 a treaty was negotiated between the Comanche and the United States to settle the conflict caused by the encroachment on Comanche Territory. The same year, however marks the start of raids against Anglo-American settlements in Texas (Wallace, 1952:291-292).

After Sam Houston's peace policy (see Lipan, 2.2.2), the new president of the Republic of Texas, Lamar, commenced an extensive war of extermination against the Indians (Wallace, 1952:293). Due to this policy, and the cold-bloodedness with which it was carried out, Texas settlements were relatively free from Comanche attacks during Lamar's term (Wallace, 1952:293). Comanches, however, continued to be threatened by Anglo expansion. With the advent of Sam Houston's term in 1841, a peace policy was again pursued, but by 1845, in response to some Delaware attacks, the Comanche began raiding Texas settlements once again.

Comanche bands, although named and although ranging over relatively fixed territories in relation to other bands, were not political units so much as social units. Membership was based on kin relations and/or geographical location but in either case, was strictly voluntary. Comanche social structure was extremely fluid. Comanche political structure was a working anarchy with natural leadership (Wallace, 1952).

In 1846 a treaty was signed between the United States and the Wasp band of Comanches. In 1849 the Wasp band renewed its raiding in Texas and Mexico which ended in 1850 with a new treaty. Northern Comanches began raiding the Wasp band in retaliation for their signing the treaty which limited movements south of the Llano River (Wallace, 1952:298).

New trade routes passing through Comanche territory, including Gregg's Route west along the South Canadian River, the Santa Fe Trail in both its major routes, and the southern road to El Paso, increased Comanche tensions. Many emigrants simply cut across the Comancheria wherever they chose.

Pressure on the bison range by resettled eastern Indians and white hunters increased Comanche and other plains Indians' hostilities. By 1853 a new treaty was signed between the United States and the Comanche, Kiowa, and Kiowa Apache. The treaty was ignored by all parties, in part because the line of settlements in Texas continued to advance into Comanche territory (Wallace, 1952:300; Mayhall, 1971:214).

In 1857 a reservation was established on the Clear Fork and about half the Wasp band (430 persons) were concentrated there. The remaining members of the band and the northern Comanche increased their activities in response (Wallace, 1952:301-312). In 1858 Comanches were being defeated everywhere in their southern territory. For protection, they concentrated their families on the Arkansas River while warriors continued their raids (Wallace, 1952:302).

To protect the Texas reservation Indians from retaliation by vigilantes, they were removed to Oklahoma in 1859. Military actions against the Comanche weakened during the Civil War. Both sides tried to hold the Comanche neutral, and both succeeded. Peace was made with both sides when it was to the advantage of the Comanches. Comanche raids, however, inexorably increased on the Texas frontier.

A treaty was signed with the Union government in 1863 but was never ratified. Hostilities along the Santa Fe Trail continued to increase. Finally in 1865 a new treaty was signed between the United States, six of nine Comanche bands, and the Kiowa and Kiowa Apache. The Indians undertook to remove themselves to an area bounded on the west by the eastern border of New Mexico, on the south by a line from the southeast corner of New Mexico to the confluence of the Red River with its North Fork and down the Red River to the 98th meridian, on the east by the 98th meridian north to the Cimarron River, and in the north the Cimarron River northwest to the southern border of Kansas and west along that border to New Mexico (Wallace, 1952:307).

The end of the Civil War brought the end of the remaining frontier protection in Texas. The Comanche and their allies mounted increasing attacks, driving back the line of settlement.

The final treaty with Comanches, Kiowas, and Kiowa Apaches was signed at Medicine Lodge, Kansas, in 1867. It restricted them to an area of but 5,546 square miles in the southwestern corner of Oklahoma, about 9 percent of the land described in the treaty of 1865 (Wallace, 1952:309-310).

The pacification of the Comanche, Kiowa, and Kiowa Apache did not end with the signing of the Medicine Lodge treaty. Not all went to the reservation, some continued at large in the Llano Estacado. Raids continued out from the reservation when Indians escaped for raids of revenge and to steal cattle and horses. In 1872 military activities against the Indians increased, but again in 1873-74 raids into Texas continued (Wallace, 1962:311-318).

In 1874 the Comanche prophet Ishatai announced that the time had come for all Comanches to gather for a Sun Dance, the only Sun Dance and the only total Comanche assembly that had or would ever occur (Wallace, 1952:319). The Sun Dance was a common feature of Plains Indian religion. As a tribal ceremonial it helped reinforce ethnic identity. The Comanche had observed the Kiowa Sun Dance and borrowed many features for their version. The Comanches' backs were against the wall and the revitalization movement organized by Ishatai was attractive to them because of their desperation. Revitalization movements, in general, are hopes for control of change by threatened people. The Comanche were certainly threatened.

After the Sun Dance, the Comanche and their allies initiated a new wave of violence, but the U.S. military mounted an active campaign to seek them out. By 1875, Comanche outbreaks were finished. A few free Comanches and escapees from the Reservation continued to mount small raids, but these were negligible (Wallace, 1952:327-328).

One of the most powerful weapons against the Comanche and their allies was the destruction of their prime means of livelihood, the bison herds. Without bison they were unable to maintain either their usual life or their raids. The destruction of the bison herds had several causes. Eastern Indians removed to Oklahoma and Anglo settlers also hunted the bison, which were insufficient to supply the needs of all. But the prime cause of the regional extinction of the bison was commercial hunting for skins and tongues. The military, quick to realize the dependence of the Comanche on the bison, encouraged commercial hunting to destroy the bison, and thus bring the Comanche and their allies under control.

In 1901 the Comanche, Kiowa, and Kiowa Apache reservation was opened to white settlement. Allotments of 160 acres were made to each Indian resident, some tribal lands were put into reserve, and a lottery held to divide the remaining reservation lands among white settlers. In 1906 those tribal lands held in reserve in 1901 were allotted to Indians who had not previously received allotments (primarily children born after 1901) and the remainder opened to white settlement (Wallace, 1952:351-353).

## **2.4 THE KIOWA AND KIOWA APACHE**

The Kiowa and a new Apache group, the Kiowa Apache, first enter the study area in the late 18th century. In 1790 these intimately connected peoples formed an alliance with their previous enemies, the Comanche. This alliance continues today.

The Kiowa Apache were, in all probability, plains Apaches roaming near the Black Hills in late prehistoric and early historic times (see Apache, 2.2; Wedel in Mayhall, 1971:4). They were the Gataka who in the late 17th century were trading with their Apache kin farther south on the plains to the northeast of New Mexico (Hyde, 1959:25) and they were referred to as Gattacka as late as 1837 (Mooney in Hodge, 1912:701). At some early time (see below) they became inseparably linked with the Kiowa. But, it was the Comanche invasion onto the plains from the mountains in the west that firmly separated them from their Athabaskan speaking kin to the south in New Mexico and Texas (Brant, 1953:201).

The traditions of the Kiowa have them originating in the mountains of western Montana. They moved east due to intratribal friction, ultimately to settle near the Black Hills becoming a typical plains tribe, borrowing religious and social institutions from the Crow (Mayhall, 1971:8-11).

When the Kiowa and Kiowa Apaches became closely tied together is unknown. The location of this intimate alliance is near the Black Hills.

The strength of the alliance of the Kiowa and Kiowa Apache is shown by the inclusion of the Kiowa Apache in the Kiowa camp circle, the organization of the Kiowa during the annual Sun Dance. The connection was so close that some have claimed that the Kiowa Apache were "a part of the Kiowa in everything but

language" (Mooney in Hodges, 1912:701). But there were obvious and continuous differences in folklore, social organization, and kinship between the two groups (Brant, 1949; Brant, 1953). Yet, as late as 1971, Mayhall in his volume *The Kiowas* stated "The Kiowas and Kiowa Apaches were one politically, socially and culturally" (1971:12). The strangeness of the alliance comes from Kiowa Apache maintenance of a distinct language and ethnic identity in the face of the pressure toward unity referred to by Mayhall.

The Kiowas and Kiowa Apaches moved south from the Black Hills area during the 18th century under military pressure from the Dakota Indians (Mayhall, 1971:14). In turn they exerted pressure on the northern bands of the Comanche, forcing them south of the Arkansas River (Mayhall, 1971:15; Wallace, 1952:286).

Peace was made between the Comanche, with the exception of the more southerly Penetaka band (Mayhall, 1971:16), and the Kiowa Apache in 1790, a peace which continues to the present and a peace that resulted in a sharing of territory and history (Wallace, 1952:276; Mayhall, 1971:15; Hoebel, 1940:11). Their peace was more than a peace, it was a confederation. The Comanche/Kiowa/Kiowa Apache confederation raided together, and were involved in the same peace treaties with the U.S. government (Mooney in Hodge, 1912:699).

The Comanche tended toward the Llano Estacado and Texas frontier while the Kiowa/Kiowa Apache tended toward the Arkansas River. These tendencies met, however, on the plains of the Canadian River (Mayhall, 1971:16).

Kiowa/Kiowa Apache/Comanche raids and retaliation, especially against the increased white traffic across the plains (see Comanche) resulted in a treaty in 1853 with the U.S. government. This treaty was ignored by all parties (Mayhall, 1971:214; Wallace, 1952:300).

Raids into Texas increased and so did U.S. military retaliation until the Civil War. During the Civil War the confederation acted with little restraint, and truly controlled the high plains raiding south into Texas and New Mexico.

In 1865 a new treaty was signed (see Comanche section) which restricted the Kiowa/Kiowa Apache to an area basically coextensive with the study area and including the area south of the Arkansas River. After the Civil War, however, raids increased due to lack of frontier protection.

The treaty of Medicine Lodge in 1867 was the final treaty made between the U.S. government and the Kiowas, Kiowa Apaches, and Comanches. It restricted them to 5,546 sq mi in southwestern Oklahoma.

Pacification did not occur immediately, for not all parties moved to the reservation (see Comanche section). By 1874, however, the Kiowas had given up (Mayhall 1971:298).

The only split between the Kiowa and Kiowa Apache occurred between 1865 and 1875. In protest over continuing Kiowa hostilities, the Kiowa Apache attached themselves to the Cheyenne and Arapahoe. While formally reunited with the Kiowa in the 1867 Medicine Lodge treaty, some stayed with the Cheyenne and Arapahoe until the cessation of all hostilities in 1875 (Mooney in Hodges, 1912:702).

The Kiowa, Kiowa Apache, and Comanche presently occupy the same area in Oklahoma.

## **2.5 OTHER NATIVE AMERICAN GROUPS**

During historic times other Native American groups occasionally hunted or raided within the study area. In 1853 Whipple (cited in Newcomb, 1967:205) encountered Pueblo Indians at the Rocky Dell rock art site in Oldham County, Texas, who reported ancestral hunting in the area. Gregg (1954:321) was attacked by Indians in 1840, who were neither Comanche, Kiowa or Kiowa Apache, in Quay County, New Mexico. Gregg took them to be Pawnee (but the attack occurred at night and only behavioral evidence exists). It can be expected that the Cheyenne and Arapahoe also had some connection to the study area in hunting or raiding.

These Indians are, however, peripheral to those who claimed and controlled the area as their territory, the Comanche, Kiowa, Kiowa Apache and, earlier, the Apaches.

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### 3.0 THE SACRED WORLD

Native Americans, with historic ties to the study area, did not make a distinction between the natural and supernatural worlds. That distinction is necessary in any discussion of their religious life but is an artificial dualism. The supernatural permeated the Native American universe. The world as a whole, as well as its constituent parts, was sacred.

#### 3.1 THE ATHABASKANS

The southern Athabaskan speakers known to have historical ties to the study area (Jicarilla, Mescalero, Lipan, and Kiowa Apache) held similar beliefs concerning the supernatural. They can all be categorized as animists (believing in individual spirits embodied in natural forces and objects) and animatists (believing in a generalized spiritual power embodied in natural objects and forces) with polytheistic tendencies. That is: (1) a spiritual Power permeated the world, a power that could be acquired and used, (2) particular named spiritual foci existed coextensively with prominent geographic features (especially mountains) and natural forces (e.g., lightning) and general spiritual foci existed among classes of animals, especially the bear and owl, and (3) in Athabaskan mythology personality was ascribed to spiritual forces and these spiritual forces are credited with acting both to create and maintain the world (e.g., Sonnichsen, 1958:26-27). These southern Athabaskans also shared an excessive dread of death and fear of ghosts, and engaged in similar burial practices to minimize the threat of the dead.

Although the general features of Apache religious life are clear, their particular features, especially as related to the study area, are not. Fieldwork on the topic of religion was late among the Apaches, and so some aboriginal behaviors and beliefs were lost. The Jicarilla were said to venerate the sun (Thomas, 1974:53) and the Kiowa Apache participated as a band in the Kiowa sun dance (Mayhall, 1971). This seems to be a general Apache religious future. Certain mountain peaks west of the Pecos River were sacred for the Mescalero as were the Rio Grande, Arkansas, Canadian, and Pecos rivers for the Jicarilla (Nelson, 1974:176) but, in general little is known of this aspect and nothing is known of geographic features held to be sacred within the study area.

A striking feature of Apachean spiritual life was the acquisition and use of spiritual power. Such power was sought for one's own personal reasons (e.g., hunting or gambling luck) as well as for shamanistic powers for curing. Power was obtained through mystical experience with a source (Opler 1974:215). Power in general was both sought after and feared, for its acquisition by others could lead to witchcraft.

The best documented features of Apachean religious life concern attitudes, beliefs, and behaviors toward death. Fear of ghosts and avoidance of the dead were pervasive aspects of Apache life. Aboriginal burials within the study area are said to have taken place in caves, rock overhangs, and crevices, although the Kiowa Apache are said to have occasionally practiced scaffold burials for warriors. Typically burial areas were avoided, forgotten and never revisited in order to minimize possible contact with ghosts. Burials either took place distant from camp and/or the camp was moved. The belongings of the dead were either buried, destroyed or discarded, and reference to the dead was never made. Especially among the Lipan and Kiowa Apache, horses belonging to the dead person were

occasionally buried along with him, but usually were inherited. (Opler, 1936, 1945, 1946, 1959; Opler and Bittle, 1961).

### 3.2 THE COMANCHE

The Comanche of the study area were, like the Apache, animistic and animatistic. Power was diffused throughout the world, but with particular geographic and animal foci; and it could be acquired and used. The sun was venerated and was either the Great Spirit, its abode, or its intermediary. Perhaps it was all three, as Comanche religion was highly individualistic with great variation. The earth was also revered as a Mother and supplier of resources, as was the moon. With the exceptions of the horse and the dog, all animals or insects could be of sacred significance to someone as an individual source of power or as a guardian spirit. The supernaturals most frequently and notably appearing in vision quests for power were the eagle, bear, and buffalo. Certain geographic features were also sources of power, particularly Medicine Mounds and Medicine Bluff, but these features are far to the east of the study area (Wallace, 1952).

Comanches were uneasy toward ghosts, but ghosts were also a source of particularly potent power. The dead were never mentioned by name. The dead were buried in natural caves, crevices, or deep washes, either among the highest accessible peak or at the head of a draw; occasionally earth or scaffold burials were also practiced (Wallace, 1952:150). Personal items were buried with the deceased. The death of a prominent person led to the movement of the village. An attempt by the Spanish to settle Comanches in San Carlos de los Jupes failed when a Comanche woman died and the Comanches left (Wallace, 1952:289; Hyde, 1959:170).

### 3.3 THE KIOWA

Surprisingly little is known of Kiowa religious life. The Sun Dance, as a tribal ceremonial, is its best documented feature. In general, Kiowa religious life was typically plains borrowing elements from the Crow (Mayhall, 1971:11).

Mayhall (1971:147) called the Kiowa polytheistic and animistic. The acquisition and use of Power was highly developed among the Kiowa especially in regard to the sun. The annual Sun Dance was the most important ceremonial for the acquisition of power, but so too was the typical plains solitary vision quest.

Animals were taken as individual totems as a result of the vision quest, and the Kiowa avoided eating birds, fish, and bear on religious grounds.

Burial was performed in the ground (Mayhall, 1971:124) but Kiowa burials can be expected in the same topography (caves, overhangs, crevices) used by the Apache and Comanche simply because of the difficulty of burial in heavy sod grasslands.

#### 4.0 CULTURAL RESOURCES WITHIN THE STUDY AREA

There are little data on Native American cultural resources within the Texas/New Mexico study area. All Native Americans were removed from the area by 1875. Time and distance have diminished interest in the area. The study area was, in any case, just part of the range of these nomadic hunters.

Later historic remains in the study area are often described as Comanche, Kiowa, or Kiowa Apache. This is true for rock art, burials, and habitation sites. While these groups shared territory and even lived together and traveled together, they were separate peoples. Their linguistic, cultural differences, and behavioral differences would be expected to be reflected in the archaeological record. This is not yet possible given the present state of the art.

#### 4.1 HABITATION SITES

Archaeological habitation sites, ascribable to historic groups, cannot be further identified as to cultural affiliation on the basis of internal evidence. Such sites are ascribed on ethnohistorical grounds. The Pete Creek Site, for example, just to the east of the study area is interpreted as an Apache occupation site from the 17th century.

Archaeological field data are limited. There are no general surveys of the area nor inventories of sites ascribable to particular historic peoples. Much of the archaeological emphasis in the area has been on Paleoindian rather than historic remains.

Site densities are known to be high along perennial streams and are thought to be high around playas on the Llano Estacado. While site density is high, temporal density is low. Thus any given site is lacking in depth of occupation. Temporal depth is found in scattered sites. Given their nomadic lifestyle, especially after the acquisition of the horse, and their tendency to move camp for religious, economic, military, or sanitary reasons, this high spatial density with temporal diversity is an obvious result.

Even historical documents fail to pinpoint habitation sites accurately enough for identification. General areas of habitation are well known, specific sites hardly at all. Gregg's traverse of the study area in 1839 and again in 1840, for example, encountered no habitation sites at all, while encountering Comanches and Kiowas on the move (Gregg, 1954). Any site that could be pinpointed would only be a one camp site among many in any case.

Numerous 19th century camp and hunting sites, identified as Jicarilla by informants and supported by Jicarilla pottery types, are said to exist in the vicinity of Tecolote, Rabbit Ears Creek, Tramperos Creek, Trinchera Pass, San Jon, Logan, and Ute Creek (Figure 4.1-1). Jicarilla are known to have hunted and raided in this area during the 19th century but so too did the Comanche, Kiowa, and Kiowa Apache. The identification of these sites as Jicarilla is problematic, not withstanding the occasional existence of Jicarilla type pottery--which was a widely traded utilitarian ware (Thomas, 1974: 88,101; Nelson, 1974:182). Tipi rings found near Conchas reservoir are historic but not otherwise identifiable as to cultural affiliation.

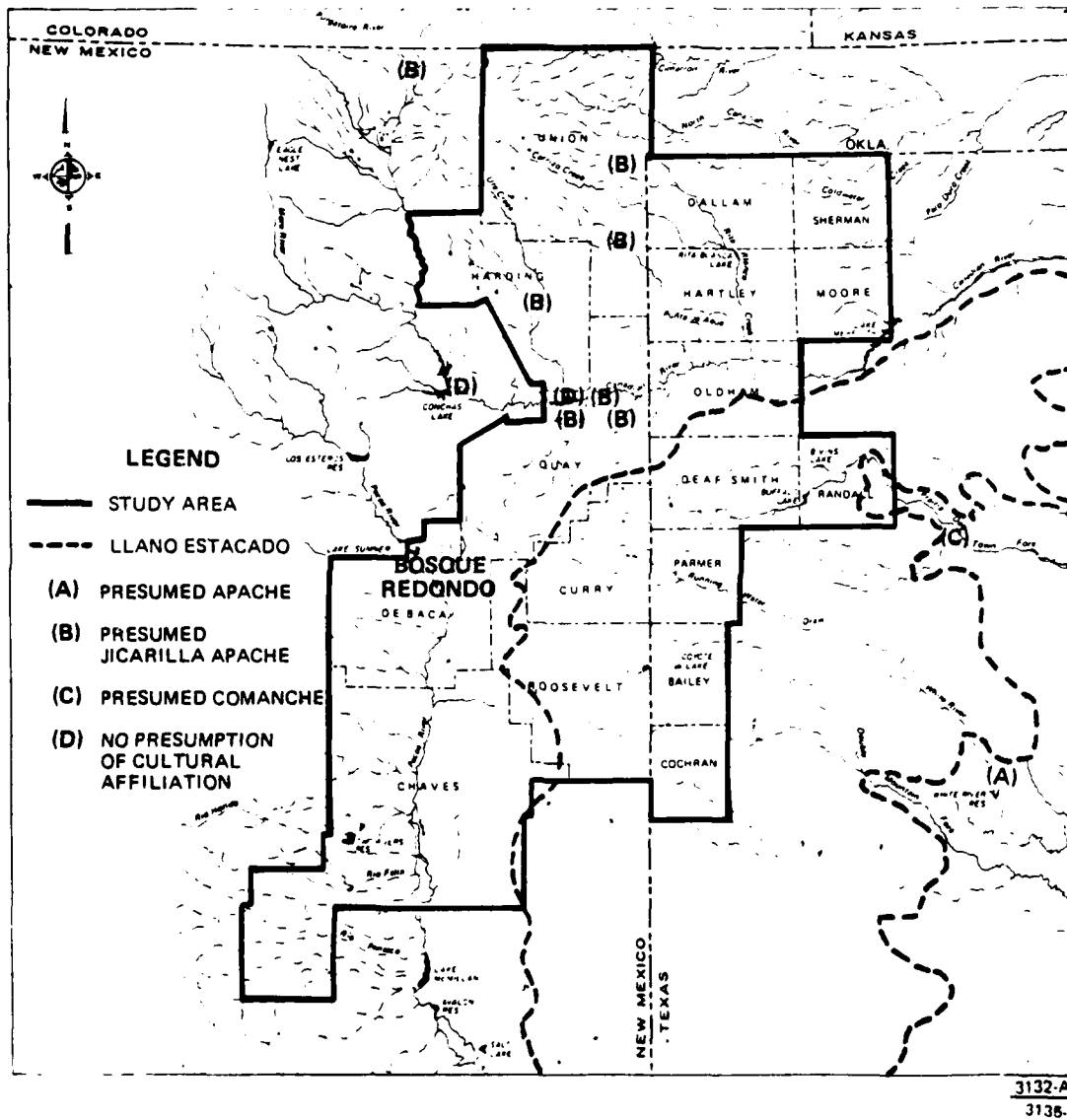


Figure 4.1-1. Known historic habitation sites/areas in the Texas/New Mexico study area (approximated by county boundaries) and the Llano Estacado.

Hammack's survey of the Ute Reservoir in Quay County found multiple tipi rings on bluffs and single tipi rings on benches along the Canadian river. These tipi rings could not be placed either chronologically or culturally except as historic (Hammack, 1965).

The Sand Pit site in Briscoe County (41 BI 34 Area II) is characterized as unique because "aside from a few burials, it appears to be the only historic Indian site of the many known to exist in the Texas Panhandle that has thus far been excavated and reported." It is said to date from 1750-1800 and is "probably" Comanche (Willey, Harrison, and Hughes, 1978).

The most important habitation site/area is the Bosque Redondo region on the Pecos River just south of present-day Fort Sumner. The Bosque Redondo is known to have been an important Apache meeting and trading place which later came under the control and use of the Comanche. In 1863, the Mescalero were concentrated on a reservation there, under the control of old Fort Sumner. Between 1863 and 1866, Navajos were collected and forced to the Fort Sumner reservation on the infamous "long march." A total of 11,468 Navajo ultimately began the march which varied from 375 to 498 miles. Deaths and desertions kept the peak Navajo population at Fort Sumner to 8,570 people. The reservation was abandoned by the Mescalero in 1865. The Navajo were removed to their homeland in 1868 and the Fort Sumner reservation was abandoned (McNitt, 1973; Buell, 1973; Jelinsk, 1967).

#### **4.2 ROCK ART SITES**

There are 11 known rock art sites ascribable to historic Indians in the Texas Panhandle (see Table 4.2-1, Figure 4.2-1). The Rocky Dell site in Oldham county on a tributary south of the Canadian is the only major pictograph site in the Texas Panhandle - although Tulia Canyon in northwest Briscoe County contains two such paintings. Many of these sites contain petroglyphs ascribable to historic people, but of unknown cultural affiliation. The Rocky Dell pictograph site is said to have historic Pueblo attributes, but others also used the Rocky Dell area (Newcomb 1967:203-205).

The Hidden Lake pictograph site near Santa Rosa, New Mexico contains figures similar to Plains Indian motifs and could be ascribed to historic peoples. A petroglyph from Conchas Dam, now on display, is of historic provenience--either Comanche or Kiowa.

#### **Burials**

Scientifically described burials of historic people in the study area are scarce. A recent inventory of archaeological sites on public lands in the New Mexico part of the Texas/New Mexico study area failed to identify even one.

Among professional archaeologists there exists a general consensus that there are a great number of burials of historic people in the study area, and that many have been found but not described by amateur archaeologists and pot hunters. Archaeologists expect burials in this region at the heads of draws, in crevices, caves and overhangs, and expect that they are especially frequent at the exposed caprock of the Llano Estacado.

Table 4.2-1. Native American rock sites in the Texas/New Mexico study area and vicinity.

SITE	COUNTY	DESCRIPTION
1. Rocky Dell	Oldham, Tx	Historic Petroglyphs/Pictographs
2. Rocky Dell Area	Oldham, Tx	Historic Petroglyphs
3. Mijares Creek	Oldham, Tx	Historic Petroglyphs
4. Brown's Camp	Oldham, Tx	Petroglyphs
5. Aqua Piedras Creek	Oldham, Tx	Petroglyphs
6. Mouth of Aqua Piedras Creek	Oldham, Tx	Petroglyphs
7. North Rim of Palo Duro Canyon	Randall, Armstrong, Tx	Petroglyphs
8. Mouth of Lahey Creek	Potter, Tx	Historic Petroglyphs
9. Chimney Rock	Potter, Tx	Historic Petroglyphs
10. Alibates Creek	Potter, TX	Petroglyphs
11. Gulf Camp	Hutchinson, Tx	Petroglyphs (removed)
12. Tulia Canyon	Briscoe, Tx	Pictographs
13. Hidden Lake	Guadalupe, NM	Pictographs
14. Conchas Dam	San Miguel, NM	Historic Petroglyph

3519-1

Source: W.W. Newcomb, 1967



Historic burials have been described from the Llano Estacado, and can be fixed in time but not in culture.

"Since these burials are not in association with occupation sites, their cultured definition is dependent on associated objects. Such objects may be entirely lacking or present but non-diagnostic; however, sufficient data are occasionally recovered to permit the interment to be dated and to suggest [emphasis added] its cultural affiliation" (Collins, 1971:90).

Historic burials are known from Yellowhouse Canyon in Lubbock County (possibly Comanche, Kiowa, or Kiowa Apache), Dawson County (affiliation unknown), Martin County (affiliation unknown), Yoakum County (probably Comanche, Kiowa, or other South Plains tribe), and Crosby County (suggests Comanche) (Collins, 1971:91).

#### 4.3 OTHER RESOURCES

Trails and boundary markers had cultural significance to Native Americans with historic ties to the area. As late as 1960, Harry Basehart recorded from Mescalero informants, the names of "turning points" or "boundaries" to the east of the Pecos River. The location of these turning points is not well documented. Their significance--other than as landmarks--is unknown. It has been suggested that Native Americans attached sacred significance to trails and markers, i.e., cairns (Cummings, 1953:210), but neither the degree of their significance nor their present state of preservation is known. Land disturbance by non-Indian settlers has probably destroyed much of this resource (see Table 4.3-1).

Some sites within the Llano Estacado and the study area, with connections to historic peoples, have been given a measure of protection. Sites listed on the National Register include significant archaeological areas as well as use areas such as Rocky Dell and the Alibates Flint Quarry. This latter site is of greater regional importance due to the widespread distribution of its product.

Table 4.3-1. National Register sites in the study area with potential connection to historic Americans.

AREA	COUNTY	SITE
1. Floydada Vicinity	Floyd, TX	Floydada Country Club Site (41 F1 1)
2. Post Vicinity	Garza, TX	Coopers Canyon Site (41 GR 25)
3. Post Vicinity	Garza, TX	O.S. Ranch Petroglyphs (41 GR 57)
4. Post Vicinity	Garza, TX	Post Montgomery Site (41 GR 188)
5. Fritch Vicinity	Hutchinson, TX	Antelope Creek Archaeological District
6. Stinnet Vicinity	Hutchinson, TX	Adobe Walls
7. Lubbock	Lubbock, TX	Canyon Lakes Archaeological District
8. Lubbock Vicinity	Lubbock, TX	Lubbock Lake Site (41 LU 1)
9. Adrian Vicinity	Oldham, TX	Rocky Dell (41 OL 4)
10. Vega Vicinity	Oldham, TX	Landergin Mesa
11. Fritch Vicinity	Potter, TX	Alibates Flint Quarry
12. Fort Sumner	DeBaca, NM	Ruins of old Fort Sumner

3520-2

Source: The National Register of Historic Places in Texas  
1979 and 1980.

## 5.0 CONTEMPORARY NATIVE AMERICANS

### 5.1 NATIVE AMERICAN GROUPS IN NEW MEXICO AND OKLAHOMA

There are no Native American reserves or colonies within the study area. Adjacent to the study area in New Mexico and Oklahoma, however, are very large concentrations of American Indians.

There are, today, no reservations--as the word is commonly understood--in Oklahoma. There are, however, 27 organized tribes with a total population of 81,000 on 1 million acres. Although federal trust land, most of this land is individually allotted and is checkerboarded among non-Indian holdings. The U.S. Commerce Department (1974:439) reports a high degree of assimilation for Oklahoma Indians such that "reference to tribal economy, transportation, climate, community facilities, and recreation would reflect the status of the non-Indian community." Generally high rates of unemployment do, however, set the Indian population of Oklahoma apart from the non-Indian population (Table 5.1-1).

There are basically 22 tribally organized Indian groups in New Mexico (combining the Navajo holdings in Arizona, New Mexico, and Utah and ignoring the New Mexico extension of the Ute Mountain Reservation) comprised of 100,000 people holding 17 million acres of land. They have been characterized by relative security of land tenure (although the Apaches are exceptions to this) and traditional lifeways. Native Americans in New Mexico, however, are economically depressed with low participation rates in the labor force (38 percent of those 16 years and older) and high unemployment rates among participants. Per capita income is also low, although highly variable and averages \$2,280 -- only 46 percent of the New Mexico State average (Table 5.1-2).

### 5.2 NATIVE AMERICANS WITH HISTORIC TIES TO THE STUDY AREA

#### The Comanche, Kiowa, and Kiowa Apache

The Comanche, Kiowa, and Kiowa Apache jointly hold 234,299 acres, 98 percent acres of which is individually allotted with the remaining 4,373 acres being tribally owned. All land is in federal trust and located in Caddo, Comanche, Cotton, Grady, Kiowa, Tillman, and Washita counties in Oklahoma. This area was part of their aboriginal range prior to their forced restriction to the area in 1874-75 (Figure 5.2-1).

All three tribes are characterized by low labor force participation rates and high (22-23 percent) unemployment. Population in 1972 was 3,300 Comanches, 3,300 Kiowas, and 500 Kiowa Apaches (Department of Commerce, 1974).

#### The Mescalero Apache

The Mescalero Reservation consists of 460,384 acres in Otero County, New Mexico. All of these federal reservation lands are tribally owned. The reservation is part of the Mescalero aboriginal range prior to their forceful restriction in the 1870s (Figure 5.2-2).

The economy is based on timber, cattle, tourism, and outdoor recreation as well as commercial activities. The 2,179 (est. 1980) Mescalero Apache are,

Table 5.1-1. Vital statistics on Native American tribes in Oklahoma.

GROUPS	EST. 1972 POPULATION (NUMBER)	TRUST LANDS INCLUDING INDIVIDUAL ALLOTMENTS (ACRES)	ESTIMATED 1972 UNEMPLOYMENT RATE (PERCENTAGE)	MEAN GRADE LEVEL ACHIEVED (YEARS)
Absentee Shawnee	807	13,480	18	7
Caddo	800	63,608 <sup>1</sup>	36	9
Cherokee	21,414	17,718	24	8
Cheyenne and Arapaho	3,400	98,020	60	10
Chickasan	5,850	96,309	16	9
Choctaw	10,849	145,069	10	Unknown
Citizen Band of the Potawatomi	1,371	4,372	9	10
Comanche	3,300 <sup>2</sup>	237,299 <sup>2</sup>	23	9
Creek	15,177	4,061	12	9
Delaware of W. Oklahoma	300	— 1	35	9
Eastern Shawnee	N.A.	1,048	N.A.	N.A.
Fort Sill Apache	60	3,568	23	9
Iowa	133	1,522	34	7
Kaw	130	20	76	10
Kicapoo	570	5,134 <sup>2</sup>	29	5
Kiowa	3,300	— 2	23	9
Kiowa Apache	500	— 2	22	9
Osage	3,368	217,639	28	11
Otoe-Missouri	980	29,343	76	10
Pawnee	1,010	17,785	76	10
Ponca	1,560	18,139	76	10
Quapaw	1,285	35,763	2	10
Sac and Fox	935	18,139	22	6
Seminole	3,115	4,726	15	9
Seneca-Cayuga	540	481 <sup>1</sup>	9	10
Tonkawa	40	— 1	76	10
Wichita	470	—	35	9
Total	81,264	1,049,097		

3521-1

<sup>1</sup>The Caddo, Delaware of W. Oklahoma, and Wichita Tribes' land holdings are combined.

<sup>2</sup>The Comanche, Kiowa and Kiowa Apache Tribes' land holdings are combined.

Source: Dept. of Commerce, 1974.

Table 5.1-2. Vital statistics of Native American reservations in New Mexico, excluding the Southern Ute Mountain reservation extension and combining Navajos in Arizona, New Mexico, and Utah.

GROUPS	ESTIMATED 1980 POPULATION <sup>1</sup>	TRUST LANDS 1975 *INCLUDES INDIVIDUAL ALLOTMENTS <sup>2</sup>	ANNUAL PER CAPITA INCOME <sup>3</sup>	ESTIMATED 1975 UNEMPLOYMENT RATE PERCENT <sup>4</sup>	ESTIMATED 1975 LABOR FORCE PAR- TICIPATION RATE PERCENT <sup>5</sup>
Acoma Pueblo	2,604	245,678*	\$ 2,512	4.3	35.8
Cochiti Pueblo	753	28,776	2,740	27.4	35.6
Isleta Pueblo	2,969	210,991	2,971	1.6	53.3
Jemez Pueblo	2,299	88,860	1,271	15.3	29.3
Jicarilla Apache	1,983	742,315	2,864	9.0	49.8
Laguna Pueblo	4,297	417,295*	3,086	5.7	57.0
Mescalero Apache	2,179	460,384	1,556	18.0	45.7
Nambe Pueblo	421	19,073	4,077	3.7	49.5
Navajo Nation (AZ, NM, UT)	69,529	14,276,140*	NA	11.0	41.8
Picuris Pueblo	117	14,947	1,547	5.6	33.3
Pojoaque Pueblo	128	11,601	4,757	14.3	64.6
Sandia Pueblo	281	22,884	2,716	7.6	40.0
San Felipe Pueblo	1,751	48,924*	1,884	4.6	47.5
San Ildefonso Pueblo	446	26,191	2,361	5.1	47.6
San Juan Pueblo	1,437	12,236	2,432	6.5	46.1
Santa Ana Pueblo	456	44,589	1,506	8.8	51.0
Santa Clara Pueblo	1,074	45,744	2,412	3.1	51.0
Santa Domingo Pueblo	2,844	69,260	1,373	2.4	24.5
Taos Pueblo	1,496	95,334	4,009	9.0	46.6
Tesuque Pueblo	303	16,811	2,432	10.1	44.5
Zia Pueblo	631	112,511	1,399	0.0	29.7
Zuni Pueblo	7,213	408,404	1,969	11.9	35.4
Total Pueblo	105,211	17,398,948*	2,280 <sup>5</sup>		38.0 <sup>6</sup>

3522-1

<sup>1</sup>State of New Mexico Office of Indian Affairs 1980.

<sup>2</sup>BIA, Branch of Financial Management.

<sup>3</sup>New Mexico Office of Indian Affairs, Statistical Report No. 1, Adjusted to be comparable with the non-Indian population.

<sup>4</sup>New Mexico Office of Indian Affairs, Statistical Report No. 2, The labor force participation rate is the percentage of people 16 years and older who are employed or looking for a job up to four weeks previously.

<sup>5</sup>New Mexico State = \$5,003.

<sup>6</sup>New Mexico State 1970 = 49.5 percent.

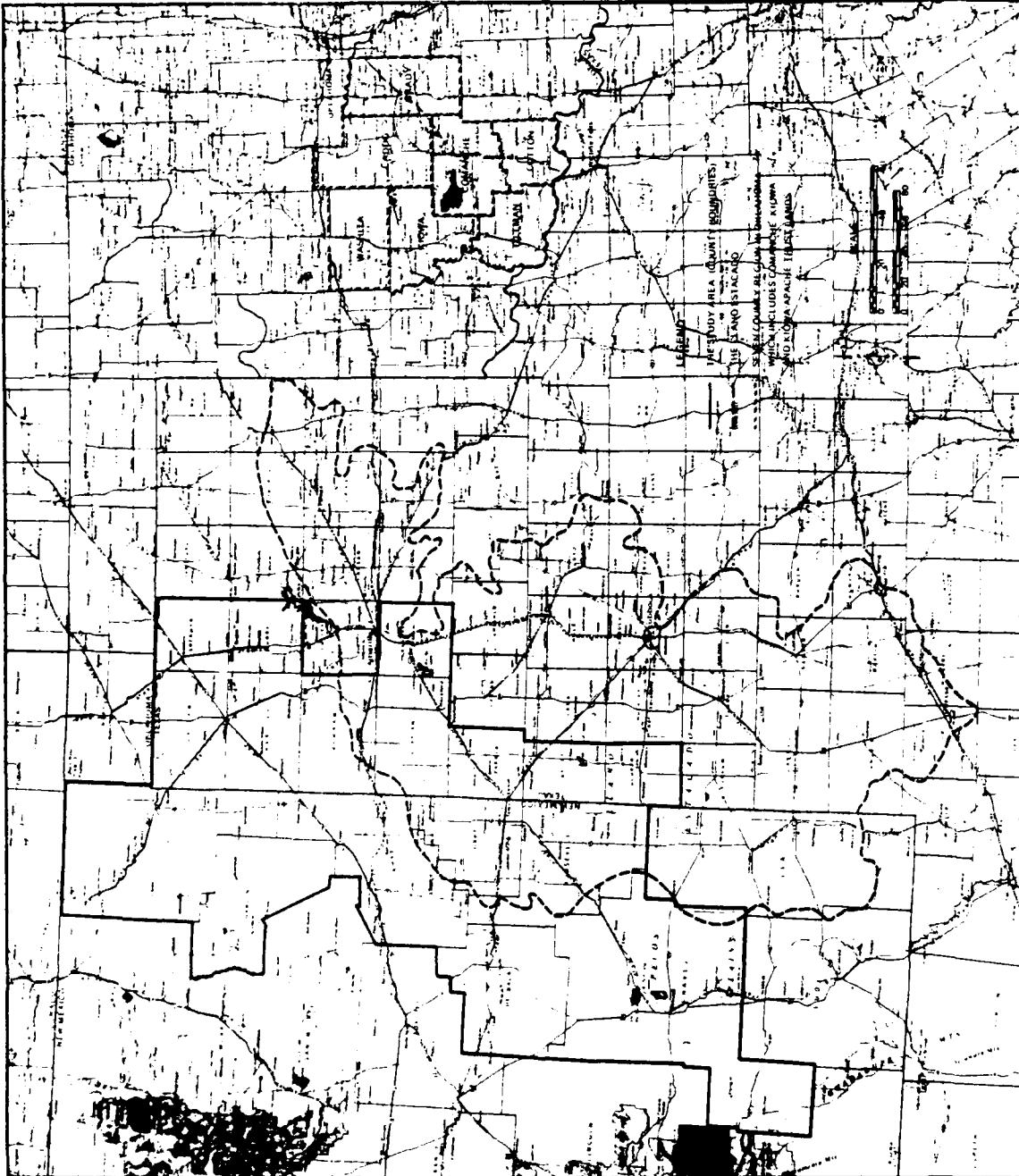
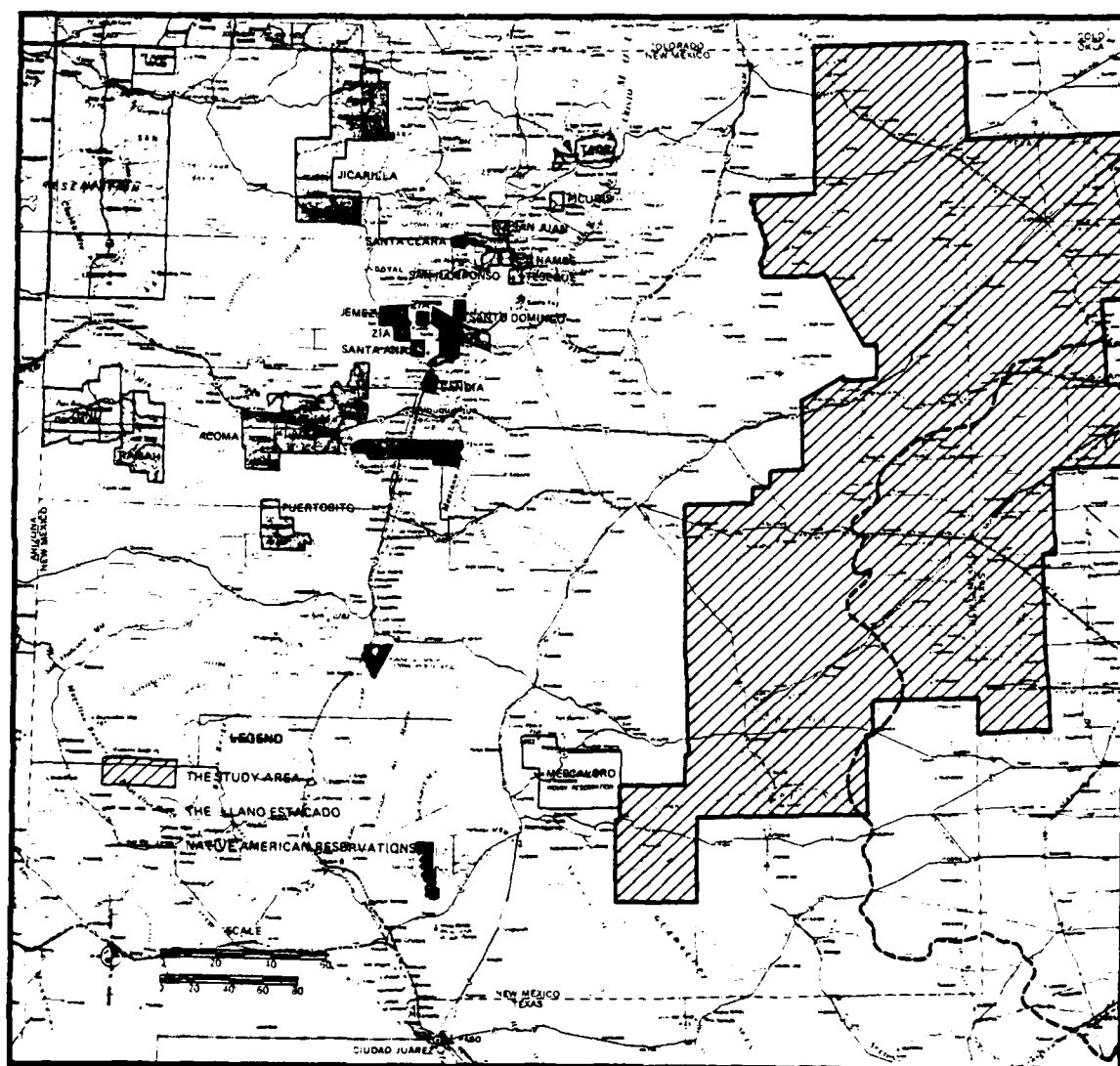


Figure 5.2-1. Counties in Oklahoma containing Comanche, Kiowa, and Kiowa Apache Trust Lands; the study area approximated by modern county boundaries and the Llano Estacado.



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Figure 5.2-2. Native American reservations in New Mexico; the study area approximated by modern county boundaries and the Llano Estacado.

however, characterized by a low per capita income (\$1,556), a moderate labor force participation rate (45.7 percent), and a high unemployment rate (18 percent) (Department of Commerce, 1974; N.M.O.I.A., 1977, 1978, 1980).

#### The Jicarilla Apache

The Jicarilla Reservation consists of 742,315 acres in Rio Arriba and Sandoval counties, New Mexico. All of these federal reservation lands are tribally owned. These lands are marginal to the traditional Jicarilla range and were granted, by executive order, in 1887 after an attempt to settle the Jicarilla with the Mescalero (Figure 5.2-2).

The economy is based on timber, mineral leases, grazing, and tribal businesses. The 1,983 (est. 1980) population are characterized by low per capita income (\$2,864), a labor force participation rate (49.8 percent) close to the New Mexico state average (49.5 percent), and a moderate unemployment rate (9 percent) (Department of Commerce 1974; N.M.O.I.A., 1977, 1978, 1980).

## **6.0 EFFECTS OF M-X DEPLOYMENT ON NATIVE AMERICAN RESOURCES IN THE TEXAS/NEW MEXICO STUDY AREA**

M-X deployment in the Texas/New Mexico study area is expected to have no impact on Native American economic resources. There are no Native American reservations or colonies nor any known Native American land or water holdings in the study area.

Native American cultural resources are not well documented. Habitation sites, sacred areas, and burials tend to be found in broken terrain and along perennial streams that are not suitable for M-X deployment. Direct impacts on Native American cultural resources due to M-X construction and operation are, therefore, judged to be unlikely. Indirect impacts due to increased population and public access to areas containing Native American cultural resources could occur. Increased vandalism of rock art sites and increased pot hunting of burials could degrade existing resources. Native American cultural resources have already experienced considerable disturbance due to farming and ranching activities, road building, flooding, vandalism, and pot hunting. M-X deployment in the Texas/New Mexico study area would probably not significantly accelerate this disturbance. M-X deployment in the Texas/New Mexico study area is, therefore, expected to have minimal impact on Native American cultural resources.

## 7.0 SUMMARY

There are no Indian reservations, grazing lands, or water resources within the Texas/New Mexico study area. Native Americans with historic ties to the area were removed to reservations in Oklahoma or to outside of the study area in New Mexico by the 1870s.

Native Americans with historic ties include: The Mescalero Apache (Mescalero Reservation, Mescalero, New Mexico), the Jicarilla Apache (Jicarilla Reservation, Dulce, New Mexico), the Comanche Tribe, Kiowa Tribe, and Kiowa Apache Tribe (shared lands, Anadarko, Oklahoma).

Ancestral Sites and Occupation Areas. The Texas/New Mexico study area was variously occupied in late prehistoric and early historic times by Jumano (Wichita), Apache, Comanche, Kiowa, and Kiowa Apache peoples who exploited this open grassland region for large game. Due to the highly mobile nature of these people, especially after acquisition of the horse in the 17th century, and the inter-tribal competition for bison and other resources in the region, aboriginal tribal boundaries comparable to those in Nevada/Utah cannot be drawn. Territorial claims of Apache and Comanche Indians to lands in the Texas/New Mexico study area fluctuated in both time and space.

Aboriginal habitation sites associated with Jumano, Apaches, Comanches, Kiowa, and Kiowa Apache, are not well-documented. Indian villages in the study area are known to have existed in the 17th, 18th, and 19th centuries along the North Canadian, South Canadian, Red, and Pecos rivers, and along Ute Creek (Collins, 1971). Site concentrations associated with historic Indians are expected along the present or former courses of all perennial streams. The Bosque Redondo area, south of Fort Sumner, was an historic reservation for the Mescalero Apache and the Navajo during the mid 1860s (Jelinek, 1967).

The distance of contemporary Native Americans from the Texas/New Mexico study area is a result of both cultural and historical factors. The majority of New Mexico reservations are ancient pueblos occupied for centuries by sedentary, agricultural peoples. Their distribution is, therefore, limited to regions such as the Rio Grande, which provided a reliable source of water for irrigation. The less densely settled and mobile populations that lived in the study area were driven from their traditional hunting grounds by the gradual extinction of the buffalo, and finally by their forced relocation to reservations in surrounding states in the mid-19th century by the U.S. Army.

Sacred Sites. Sites and features which are regarded as sacred among Comanche, Apache, and Kiowa people are similar to those discussed in ETR-21 for Great Basin Indians. Due to the geographic nature of the Texas/New Mexico study area, however, and the nature of aboriginal settlement patterns, such sites are unevenly distributed in space.

Prominent physiographic features are generally limited to interruptions in the flat terrain associated with rivers, canyons, and draws. It is in these isolated areas where rocky surfaces and debris have been exposed that petroglyphs and pictographs are found. Rock art sites are recorded for Briscoe, Randall, Potter, Armstrong, and Oldham counties (Newcomb, 1967). As in the Great Basin, rocky areas were also

avored for late prehistoric and historic burials. Graves associated with the Apache and Comanche-Kiowa-Kiowa Apache are known for Lubbock, Dawson, and Crosby counties (Collins, 1971). Caves, rockshelters, and rocky crevices were favored for interments or, in their absence, slabs of sandstone were utilized to protect the burial.

Due to the mobile nature of Apache and Comanche culture, sacred significance is attached to established trails, and, more particularly, to rock cairns or shrines established at points along these trails for ceremonial purposes (Cummings, 1953). The preservation of these and other sacred sites in the Texas/New Mexico study area, however, is complicated by the considerable ground disturbance which has taken place during the historic period. Moreover, the temporal and spatial distance of Apache and Comanche peoples from these ancestral lands has eroded tribal knowledge of traditional sites and features.

Possible Effects of M-X Deployment in the Study Area. There are no known Native American land or water resources in the study area, nor are Native American cultural resources well documented there. Considerable time and distance separates Native Americans from the study area and considerable disturbance of cultural resources has occurred due to other activities. M-X deployment will not occur in areas expected to be high in cultural resources (broken terrain and along perennial streams). M-X deployment in the Texas/New Mexico study area, therefore, will not significantly affect Native American resources.

## REFERENCES

- Brant, Charles S., 1949. "The Cultural Position of the Kiowa-Apache." Southwestern J. of Anthropology, 5:56-61.
- Brant, Charles S., 1953. "Kiowa Apache Culture History: Some Further Observations." Southwestern J. of Anthropology, 9:195-201.
- Buell, Clifford R., 1973. "The Navajo Long Walk: Recollections by Navajos." The Changing Ways of Southwestern Indians, Albert H. Schroeder, ed., The Rio Grande Press, Inc., Glorieta, New Mexico.
- Collins, Michael B., 1971. "A Review of Llano Estacado Archaeology and Ethnohistory." Journal of the Plains Conference 16(52) May 1971, pp. 85-104.
- Cummings, Byron, 1953. First Inhabitants of Arizona and the Southwest, Cummings Publication Council, Tucson, Arizona.
- Forbes, Jack Douglas, 1957. "The Janos, Jacomes, Mansos and Sumas Indians." New Mexico Historical Review, 32(4):319-334.
- Gerald, Rex E., 1974. "Aboriginal Use and Occupation by Tigua, Manso, and Suma Indians." Apache Indians III, Garland Publishing, Inc., New York and London.
- Gregg, Josiah, 1954. Commerce of the Prairies. ed. Max L. Moorhead, University of Oklahoma Press, Norman.
- Gunnerson, D. A., 1972. "Man and Bison on the Plains in the Protohistoric Period." Plains Anthropologist (55): 1-10.
- Hammack, Laurens C., 1965. Archaeology of the Ute Dam and Reservoir. Museum of New Mexico Press, Santa Fe.
- Hodge, Frederick Webb, ed. 1912. Handbook of American Indians North of Mexico. Washington, Government Printing Office.
- Hoebel, E. Adamson, 1940. The Political Organization and Law-ways of the Comanche Indians. Memoirs of the American Anthropological Association No. 54, Menasha, Wisconsin, American Anthropological Association.
- Jelinek, Arthur J., 1967. A Prehistoric Sequence in the Middle Pecos Valley, New Mexico. Anthropological Papers, Museum of Anthropology, University of Michigan No. 31, Ann Arbor.
- Johnson, Eileen et al., 1977. "The GARZA Occupation at the Lake Lubbock Site." Bull. of the Texas Archaeological Soc. 28:83-109.
- Mayhall, Mildred P., 1971. The Kiowa. University of Oklahoma Press, Norman.
- McNitt, Frank, 1973. "The Long March: 1863-1867." The Changing Ways of Southwestern Indians. Albert H. Schroeder, ed., The Rio Grande Press, Inc., Glorieta, New Mexico.

- Nelson, Jean Ware, 1974. "Anthropological Material on the Jicarilla Apache." Apache Indians VIII. Garland Publishing, Inc., New York and London.
- Newcomb, W.W., 1967. The Rock Art of Texas Indians. University of Texas Press, Austin and London.
- N.M.O.I.A., 1977. Per Capita Income of the Pueblo and Apache Indian Reservations in New Mexico, Statistical Report No. 1, State of New Mexico Office of Indian Affairs, Santa Fe.
- N.M.O.I.A., 1978. The Employment Picture of the Indian Reservations in New Mexico. Statistical Report No. 2, State of New Mexico Office of Indian Affairs, Santa Fe.
- Opler, M.E., 1936. "A Summary of Jicarilla Apache Culture." American Anthropologist, 38:202-223.
- Opler, M.E., 1945. "The Lipan Apache Death Complex and its Extensions." Southwestern J. of Anthropology, 1:122-141.
- Opler, M.E., 1946. "Reaction to Death Among the Mescalero Apache." Southwestern J. of Anthropology, 2:454-467.
- Opler, M.E., 1959. "Component, Assemblage, and Theme in Cultural Integration and Differentiation." American Anthropologist, 61:955-964.
- Opler, M.E., 1974. "Lipan and Mescalero Apache in Texas," Apache Indians X. Garland Publishing, Inc., New York and London.
- Opler, M.E., and William E. Bittle, 1961. "The Death Practices and Eschatology of the Kiowa Apache." Southwestern J. of Anthropology, 17:383-394.
- Ray, Verne F., 1974. "Ethnohistorical Analysis of Documents Relating to the Apache Indians of Texas," Apache Indians X, Garland Publishing, Inc., New York and London.
- Scholes, France V. and H. P. Mera, 1940. "Some Aspects of the Jumano Problem," No. 34, Vol. VI, Contributions to American Anthropology and History. Carnegie Institute of Washington, Washington, D.C.
- Schroeder, Albert H., 1974. "A Study of the Apache Indians, Parts I, II, and III," Apache Indians I, Garland Publishing, Inc., New York and London.
- Sonnichsen, C. L., 1958. The Mescalero Apaches, University of Oklahoma Press, Norman.
- Stanley, F., 1962. The Apaches of New Mexico: 1540-1940. Pampa Print Shop, Pampa, Texas.
- Texas Historical Commission, 1979. The National Register of Historic Places in Texas, Texas Historical Commission, Austin.

Texas Historical Commission, 1980. The National Register of Historic Places in Texas: Additions and Corrections through April 30, 1980. Texas Historical Commission, Austin.

Thomas, Alfred Barnaby, 1974. "The Jicarilla Apache Indians: A History, 1598-1888," Apache Indians VIII, Garland Publishing, Inc., New York and London.

U.S. Department of Commerce, 1974. Federal and State Indian Reservations and Indian Trust Areas. U.S. Department of Commerce, Washington, D.C.

Wallace, Ernest, and Hoebel, E. Adamson, 1952. The Comanche: Lords of the High Plains. Norman: The University of Oklahoma Press.

Willey, Patrick S., W.R. Harrison, and J.T. Hughes, 1978. "The Sand Pit Site." Archaeology at Mackensie Reservoir by Jack T. Hughes and Patrick S. Willey, Office of the State Archaeologist, Texas Historical Commission, Austin.

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